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Chair

Mr. Mark Warawa

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● (0900)

[*English*]

The Chair (Mr. Mark Warawa (Langley, CPC)): Good morning, colleagues. We will begin our meeting.

I want to welcome everyone to the 38th meeting of the Standing Committee on Environment and Sustainable Development as we continue our studies on the development of a national conservation plan.

I want to thank our witnesses and welcome them.

We have some individuals and some groups here today. Each individual or group will be given up to ten minutes. We will begin with Mr. Hutchings. Then we'll have Mr. Willison, the Atlantic Salmon Federation, and the Huntsman Marine Science Centre, after which we'll have some questions.

Mr. Hutchings, please begin. You have ten minutes.

Dr. Jeffrey Hutchings (President, Canadian Society for Ecology and Evolution; Professor of Biology, Dalhousie University; As an Individual): Thank you very much.

Thank you indeed for the invitation to appear before the committee as part of your deliberations regarding the development of a national conservation plan.

In addition to a 30-year academic career working on fish ecology and evolution, my remarks are informed by responsibilities I exercised as chair of the Committee on the Status of Endangered Wildlife in Canada, or COSEWIC, the national arm's-length-from-government science body responsible for advising the Minister of the Environment under the auspices of the Species at Risk Act.

I am also the chair of a recent national report on ocean conservation prepared in response to a request by the Royal Society of Canada that an independent expert panel be convened to advise on a series of questions related to the conservation of Canada's marine biodiversity.

Following its deliberations from June 2010 to January 2012, the panel released its report in February. It is entitled *Sustaining Canada's Marine Biodiversity: Responding to the Challenges Posed by Climate Change, Fisheries, and Aquaculture*. Pursuant to the current interests of this committee, the Royal Society report attempts to describe trends in Canada's marine biodiversity from an ocean conservation perspective and from a sustainable use perspective, and to provide broad, strategically based recommendations to establish Canada as an international leader in ocean stewardship and marine conservation.

One of the expert panel's additional responsibilities was to determine whether Canada has fulfilled its national and international obligations to conserve and sustain marine biodiversity. Some progress has been made, but the panel concluded that Canada's efforts have fallen well short of the progress made by many developed nations to sustain and conserve ocean biodiversity. Countries such as Australia, Norway, and the United States have made greater strides in this regard than Canada.

The panel attributed Canada's lack of progress in fulfilling its obligations to an unduly slow pace of statutory and policy implementation. The panel also concluded that progress is further impeded by regulatory conflict responsibilities within Fisheries and Oceans Canada to promote industrial and economic activity, on the one hand, while conserving marine life and ocean health on the other; and by the level of discretion afforded to the Minister of Fisheries and Oceans.

Thus, it is both timely and appropriate that the standing committee undertakes a study in support of the development of a national conservation plan, particularly from an aquatic, indeed oceanic, perspective.

Concomitant with your efforts, I note that the Auditor General of Canada has planned for spring 2013 an audit on protecting biodiversity and an audit note on species at risk.

What should the purposes of an NCP be? The purposes might be as follows: one, to provide for the conservation and, where relevant and appropriate, the sustainable use of Canada's terrestrial and aquatic biodiversity; two, to establish a network of protected areas in the marine, freshwater, and terrestrial environments; three, to educate Canadians about the natural wonders of the enormous biological wealth on land and in the sea for which they, through the actions of our parliamentarians from all parties, are primary international stewards; and four, to provide a meaningful, empirical, and evidentiary basis for Canadians and the world to believe that this country, increasingly known as one that does not fulfill its obligations related to conservation, is in fact truly committed to the conservation of species, ecosystems, and the quality of human life that results therefrom.

What should the goals of an NCP be, and what conservation priorities should be included? I'll combine my responses to these two questions. In my view, the primary goals and conservation priorities of an NCP should be to protect and recover degraded habitats and ecosystems; to conserve ecosystems of national and international biodiversity importance; to rebuild depleted populations and species, many of which are currently at increased risk of extinction, 650 in Canada; and to restore the natural resilience of Canada's terrestrial, freshwater, and ocean ecosystems to allow them to adapt to ongoing and future challenges posed by human and natural activities, such as those resulting from climate change.

What guiding principles should govern an NCP? A credible NCP needs to be underpinned and informed by a full and appropriate consideration of the best available science. This recommendation is entirely consistent with governmental policies.

Consider, for example, the Government of Canada's framework for science and technology advice, which states:

> Science advice has an important role to play by contributing to government decisions that serve Canada's strategic interests and concerns in areas such as public health and safety, food safety, environmental protection, sustainable development...and national security.

DFO states on its website that

> ...science is the basis for sound decision making...on the consequences of management and policy options, and the likelihood of achieving policy objectives under alternative management strategies and tactics.

● (0905)

The Minister of the Environment relies on the best available scientific information when considering the advice on species at risk provided by COSEWIC. However, despite this clear acknowledgement of the utility and indeed the necessity of science in government planning and decision-making, Canadians have recently witnessed a serious diminution, weakening, and in some areas an abandonment of these long-standing roles of science in government decision-making.

Changes to the Fisheries Act, for example, will remove habitat protection for most of Canada's freshwater fish, including an estimated 80% of Canada's freshwater fishes at risk of extinction. And removal of habitat protection provisions for fish deemed to be of no importance to fisheries also removes the habitat protection afforded indirectly to other aquatic life that share Canada's waters with fish, such as amphibians, reptiles, mussels, and numerous aquatic plants and insects.

The closure of the Experimental Lakes Area in northwestern Ontario is also of concern, I think, to this panel, insofar as this is a facility that has contributed immeasurably to national and international policies associated with factors affecting human and environmental health, such as acid rain, mercury pollution, endocrine-disrupting chemicals, and other aquatic pollutants and toxins.

ELA scientific research has contributed to Canadians' access to healthy, safe, and clean water and access to fish and other aquatic life safe for human consumption.

Closure of the ELA will strip Canada of one its most precious scientific jewels. It will compromise the ability of science to contribute effectively to the health and safety of our fresh waters and the well-being of Canadians. And its closure will hinder rather than help, I think, efforts to establish a scientifically credible NCP.

In closing, I would like to offer the following recommendations that I might suggest be implementation priorities of an NCP:

(1) Strengthen, rather than weaken, our national environmental laws; conservation planning will be jeopardized, otherwise.

(2) Strengthen, rather than weaken or extinguish, the science that underpins Canada's ability to provide reliable, internationally respected, peer-reviewed scientific advice in support of environmental health, biodiversity conservation, and long-term monitoring of Canada's Arctic and temperate terrestrial and aquatic ecosystems.

(3) Strive to achieve a federal-provincial-territorial accord on an NCP analogous to that achieved by the national accord for the protection of species at risk.

(4) Lastly, implement statutory renewal to fulfill national and international commitments to conserve terrestrial and aquatic biodiversity, and in so doing provide a meaningful, transparent, accountable, and legislatively effective foundation for a national conservation plan.

Thank you for the opportunity to make these remarks.

The Chair: Thank you, Mr. Hutchings.

Next is Mr. Willison. You have ten minutes.

Dr. Martin Willison (Adjunct Professor, School for Resource and Environmental Studies and Marine Affairs Program, Dalhousie University, As an Individual): Thank you very much.

Thank you to the committee for welcoming me here.

My name is Martin Willison. I am 68 years old and a retired professor of biology and environmental studies at Dalhousie University. I currently hold the title of adjunct professor in the university's School for Resource and Environmental Studies and Marine Affairs Program.

For about 20 years I taught nature conservation to undergraduate students. My graduate students conducted research on practical aspects of conserving both marine and terrestrial biodiversity using the tool boxes of both natural and social sciences. As part of this work, I trained many students who were later employed by government agencies. I also helped to build the framework for the network of environmental non-government organizations in Nova Scotia.

In the last five years I have expanded this interest to a region of western China, where I act as an educator and consultant about biodiversity and restoration ecology, including biodiversity strategy-and-action planning. As a comment on that, I helped write a biodiversity strategy and action plan for a municipality in China—of 30 million people, by the way.

Biodiversity is the foundation of life itself and is recognized at three main levels: genetic, taxonomic, and ecosystemic. Human activities threaten the integrity of biodiversity in many ways, and the threats are now globalized. We address these threats at all levels and in many ways, such as through gene banks, species at risk, protected areas, and resource management.

Despite many efforts made in Canada to protect biodiversity, it continues to decline. The decline is a strong indicator of fundamental unsustainability in our society, including our economy, health, and culture. The decline in biodiversity must be slowed and eventually stabilized if human life is to continue.

To achieve this in Canada, we need—but lack—a holistic overarching plan for the conservation of biodiversity. Many of the necessary parts for such a plan are in place, but the parts are not well integrated, and the necessary links are often missing or exist only because the practitioners, such as myself, know what is needed.

Progress has often been slow due in part to this lack of an overarching framework. While some conservation practitioners are professional, many are ordinary citizens who see the big picture but struggle to make real progress towards only too evident goals.

A national plan will need to have a strong foundation in both the natural and the social sciences, including biology, environmental science, ecology, law, and economics. It will need to integrate actions at federal, provincial, municipal, and non-government levels. It should be designed so that it can be activated by government organizations, non-government organizations, businesses, and the general public. It must be as adaptive as possible; that is, it should be a facilitative plan—one that makes things happen—that eases the path to progress and enables biodiversity conservation to become a national priority rather than an afterthought.

The process of making the plan will need to be inclusive of all who wish to be involved, because inclusion ensures subsequent effectiveness in conserving common heritage. This will not be easy to achieve, but failure to do it will mean that we will continue to lose ground.

A national conservation plan will have to consider all land and water classes by using an ecosystem approach. It will have to consider all possible approaches to conservation, including some that have not yet been utilized. As such, it must become operative before it is fully made by ensuring that some parts become functional as soon as their place within the whole can be adequately perceived; that is, it should function while still being a work in progress. After all, that is how nature works, and if we take an ecosystem approach, we should learn from nature's wisdom. Humans are part of nature, and ecosystems include people.

The challenge for us is how to complete such a large endeavour—actually, it's a huge endeavour—in a timely fashion. Of all the constraints, time is the one that is in shortest supply. After a lot of thought about this and how to do it, I have concluded that it is possible, and that there are two essential practical elements that will make it feasible. The first is an inclusive process that is organized outside of government itself, albeit with government input. The second is the use of modern technology that permits planning in a cost-effective way. I believe that a set of comprehensive living plans could be made in three years, at a cost to government of less than $500,000—less than half a million dollars.

● (0910)

The method would be as follows.

Any plan is founded on an orderly integration of knowledge that is used to determine actions toward defined goals. The most successful integration of knowledge ever achieved is a modern compilation called Wikipedia. This huge multi-lingual encyclopedia is a living document created by millions of writers, most of whom work without pay in their spare time. It is used constantly as a reference by literally hundreds of millions of people. Wiki software is readily available and can be adapted for making a plan.

Canada is a well-wired country and would instantly leap to the front of adaptive planning by taking this inclusive online approach to planning. Government, business, and non-profit groups all have the capacity to build the necessary framework. It is probable that a consortium of non-profit conservation-oriented groups would quickly leap forward to offer this service for public good.

I lay out then in my presentation a ten-step strategy, which might unfold as follows.

In May—that's now—the strategy is announced. It's the wiki concept, enterprise approach, and target budget. In June, next month, there's a call for proposals with emphasis on efficiency and timeliness. In September of this year there's selection of short-listed proposals. In October there's public engagement in online selection of a winning proposal; so we involve the public in actually deciding who's going to do this. In January comes the announcement and initial funding of the winning bid. In June 2013, get the hardware and the software for the wiki framework in place. I know that can be done. I have a nephew who makes his living doing that. In October, bare bones of one or more plans could be in place using expert input—I'd be happy to help. By December of next year, the wiki could be available for public use. By June 2014, we could have the first useful elements of the plan adopted in practice, and in June 2015 we could have an operational living plan in place.

I lay this out simply to show you that it could be done. It's just a matter of imagination. I have a lot of that.

Among many possible approaches to the plan, there are several elements that need to be included. I feel I don't actually need to go through this list, because it's so close to what Jeff Hutchings has already presented to the committee that I think it's almost unnecessary. But we'd have to consider marine and terrestrial systems; we have to look at species at risk; we have to deal with protected areas, as Jeff has mentioned; we have to disseminate information to the public, an education approach; we need to monitor what's actually going on; and we need to involve lots of groups such as museums, universities, government departments, and civil society.

Civil society means, simply, that everybody can have input into it. We could have a plan that includes a plan for almost every lake in this country, because the local communities who live next to them could just say, “I'll make that bit for you, because we love our lake. We love our river. We love our hill, our mountain, everything.”

If you involve civil society, you can make your plan. The only way you can do that cost-effectively is using a wiki.

Thank you.

● (0915)

The Chair: Thank you, Mr. Willison. That was very interesting.

Now we'll hear from the Atlantic Salmon Federation. You have ten minutes.

Mr. Todd Dupuis (Executive Director, Regional Programs, Atlantic Salmon Federation): Thank you. I want to thank the committee for this opportunity to appear today.

My name is Todd Dupuis. I am the executive director of regional programs in Canada for the Atlantic Salmon Federation, and my esteemed colleague is Lewis Hinks, who is the Atlantic Salmon Federation's program director for Nova Scotia.

The Atlantic Salmon Federation is a science-based, non-profit organization dedicated to the conservation, protection, and restoration of wild Atlantic salmon and the ecosystems on which they depend. ASF's actions are firmly based on scientific research, and the organization continues to be a leader in unraveling the mysteries of Atlantic salmon migration and the issues affecting their restoration to abundance in both ocean and rivers.

From tracking smolt in rivers as they migrate towards Greenland, to monitoring the interactions of wild Atlantic salmon with farmed salmon, to providing expert advice on all issues related to Atlantic salmon, ASF works to bring science to bear on matters related to wild Atlantic salmon. ASF has a conservation network comprised of seven regional councils, one in each of the provinces in Atlantic Canada, one in Quebec, one in Maine, one in New England, and 140 affiliate organizations.

Through the generous support of individuals, corporations, and foundations that share the federation's goals, we currently employ 28 full-time employees who work to save salmon from the detrimental impacts of over-harvesting, pollution, and habitat loss. ASF has been doing this work since 1948. ASF does not receive government financing.

There were five or six questions that were posed to us. Considering the time limitations, we decided to focus on three, the first one being what guiding principles should govern a national conservation plan.

ASF suggests three guiding principles. First, a national conservation plan needs to be watershed-based. Boundaries for land use planning and management should be based on biophysical boundaries that make ecological sense. The primary boundary for an ecosystem approach to land use planning and management should be by watershed. A watershed-based approach to land use and water management provides benefits that include understanding how activities on the landscape influence water quality and quantity, fostering a connection to the landscape we live in, and ensuring that activities upstream are respectful of downstream residents.

The second guiding principle that we suggest is that the national conservation plan needs to be rooted in sound science. Watershed conservation and restoration requires an understanding of the biophysical conditions and processes that would create wildlife habitat, and a national conservation plan needs to use the best available science to ensure the maintenance and the restoration of these biophysical functions.

Thirdly, the national conservation plan should include a program to educate Canadians about the natural environment. “First generation born in the city” syndrome has Canadians losing touch with nature. A program to increase ecological literacy should lead to higher participation in the conservation matters.

The second question is what should the conservation priorities of a national conservation plan be? I only have five here. And we're being a little “fish-centric” because this is what we do; because we deal with Atlantic salmon, we're focusing on fishy stuff.

The first priority is to protect water quality and water quantity. Depending on where you are in eastern Canada, water withdrawal for urban centres or agricultural use is impacting river baseflow. Siltation and chemicals in the form of fertilizers and pesticides are impacting water quality, not just for fish but also humans.

We need to restore habitat and habitat connectivity. Degraded rivers need restoration and protection. We need to provide fish passage for all native fish to all natural ranges. Culverts and dams are reducing connectivity for fish. A recent survey in the inner Bay of Fundy on 33 rivers by the Department of Fisheries and Oceans deemed that more than half the culverts in the roadways are not actually allowing fish to pass. And to extrapolate it, if you were to have to replace all the culverts in Nova Scotia to provide passage for all native fish, the cost would be about $1 billion, in Nova Scotia alone.

Focus on native species over non-native species. Native species should always take precedence. We need to stop the illegal movement of non-native fish species into new waters. Despite recent research by Laval University and UPEI, some governments in eastern Canada are still allowing the stocking of rainbow trout, which is a non-native fish to this coast. We know from this research that these fish are actually impacting our native fishes, especially Atlantic salmon. Despite that, some governments—including the Government of Nova Scotia—still allow the stocking of rainbow trout, which is non-native to this province.

Priorities need to be regional to reflect differences across the country. It cannot be one-size-fits-all, given the differences in landscapes and issues across this country.

● (0920)

Concerning protection of critical habitat, federal parks are important for the protection of ecosystems. But also important is a process to delineate, map, and protect critical habitats within individual watersheds. It might not be realistic to protect entire watersheds, but the most important habitats within these watersheds need to be afforded protection.

Community-based watershed groups, the NGOs, know their watersheds well enough to identify and map these critical habitats. For example, I live in a small watershed in P.E.I., the West River. It has a run of about 200 Atlantic salmon. If you were to add up the total kilometres of stream in this small watershed, there are about 120 kilometres of stream, but those 200 Atlantic salmon all spawn within three kilometres of each other.

This certainly would be in my mind a critical habitat, but nobody knows that. Fisheries and Oceans doesn't know that, nobody in the provincial government knows that, but the community group does know it. Despite this, there is clear-cutting of forest along these three kilometres upon which those Atlantic salmon depend.

We need a central storage for important watershed habitat information. Community groups wax and wane, and this corporate knowledge should not be lost in any transition. Critical habitat information needs to be kept in a central location for consideration and protection for future generations.

Also, we need a system or a mechanism to protect the identified, important critical habitats within these individual watersheds.

What should the implementation priorities of a national conservation plan be? We have a couple to suggest. One is support for community groups and further engaging of communities in their conservation efforts, helping with solutions and science-based planning.

Governments have fewer resources and have downloaded much of the work and responsibility to community-based watershed organizations and CNGOs. It is these non-government groups that are becoming the delivery mechanisms for conservation and restoration as government resources are rolled back.

For example, Fisheries and Oceans Canada—and this is their number—spends about $12 million annually on wild Atlantic salmon, whereas NGOs on the eastern coast spend $15 million and a further $10 million in in-kind services. So the NGOs now are spending almost twice as much as the federal government on the restoration and protection of wild Atlantic salmon.

Among priorities to support community groups, we would list technical expertise for community-based organizations. Governments are losing technical support capacity; this is the first to go as government budgets are reduced. NGOs such as Trout Unlimited Canada and the Atlantic Salmon Federation have become the support mechanisms for technical assistance as governments pull back, but demand far outstrips our capacity to provide it.

Community groups want to do the right thing with their limited resources, but they need the training and advice. Governments need to....

[*Technical difficulties—Editor*]

Here we go. I'm almost finished.

Community-based organizations are a cost-effective mechanism for the delivery of conservation programs, as they have the capacity to turn one dollar into three or four dollars. These organizations live year to year with unstable funding; this does not allow for effective long-term planning or progress. It is the community groups that are carrying the burden as government programs and government technical support disappear. We need to support these groups and not starve them out of existence.

As an example, the federal government provides some funding on an annual basis through various programs, but I'm told that the federal programs this year will not be announced until July 15. You can't plan and do work in the field season when you don't know what kinds of resources you have until the middle of the summer.

Lastly, there is the question of ecological goods and services. Canada needs to continue to be a working rural landscape supporting the economy while providing services to the environment. An ecological goods and services program would provide incentives to landowners to provide ecological services that would clean the air and the water and provide wildlife habitat.

As an example, P.E.I. has an ecological goods and services program that's footed in policy. It's called ALUS, or the Alternative Land Use Service. It's a voluntary program with the goals of reducing soil erosion and filtration of water courses to improve water quality and wildlife habitat and reduce the impacts of climate change. They provide incentives to private landowners to do the right thing, through tax breaks or through monetary means.

● (0925)

In conclusion, we would like to thank the standing committee for the opportunity to present our thoughts. We feel that a national conservation plan for Canada is a worthy initiative and we wish the committee the best of luck in its development.

The Chair: Thank you, Mr. Dupuis.

Next we will hear from the Huntsman Marine Science Centre, Dr. Whoriskey.

Dr. Frederick Whoriskey (Vice-Chair, Education, Dalhousie University, Huntsman Marine Science Centre): Thank you very much.

One of the dangers of being the last speaker on an eminent panel is that you become increasingly redundant. However, I will proceed to the best of my ability.

My name is Fred Whoriskey. I am a research scientist by training and currently the executive director of the Ocean Tracking Network at Dalhousie University. This is a project that is wiring the world's oceans with Canadian-made, state-of-the-art technology. It is documenting movements of marine animals, where they're going, the habitats they use, and tying those to environmental conditions. I have that perspective to bring here.

I appear before you today on behalf of Huntsman Marine Science Centre. I was requested by the board to make this presentation about the national conservation plan and what the Huntsman might contribute to developing it.

Personally, I've lived and worked in communities around the ocean all of my life, and I know how the livelihood and social fabric of these communities depends on the water. People take to the water naturally for their livelihood. They develop a special series of skills that occupy them on the water, and they take great pride in everything they do there.

Historically we have had a limited selection of choices from which we might make a living. We were in the transportation field, moving goods from one place to the other. That field is incredibly healthy, even now. It's brought its own problems as it's become bigger and bigger, but people are still moving quantities of goods we could never conceive of before.

By contrast, over the past century the other pillar of our activities in the ocean, the fisheries, has gone into a steady and massive decline. This is due in large measure to our increasing technological sophistication and power that has managed to permit us to overharvest almost every part of the ocean where we find fish stocks right now. The sustainable opportunities in the fisheries have consequently disappeared, not only in Canada but globally.

We've applied our traditional solutions to that, which is to stop what we're doing and let the fish rebound, and what's happened is that they have not rebounded. At the end of the day, it indicates that we don't understand. We don't understand what's driving these populations. It's a knowledge question, and we are not applying the appropriate management regimes because we don't know what the drivers are. It's a fundamental misunderstanding.

Due to these lost opportunities, and just due to the innovativeness of Maritimers, people have also been turning to the ocean for alternate economic development. Technology has steamed the way forward on this. If you look at a partial list of what we are doing out there now, it includes things like marine pharmaceuticals; marine tourism; tidal power; aquaculture, notably the Atlantic salmon farming industry. We have deep-water mining that's beginning to develop, and oil and gas extraction is very important here on the east coast. The National Research Council and others are developing algae as biofuel. We have marine engineering, and then ultimately a technology sector that's providing the technology to permit all of those other things.

All of these new activities have the potential to bring employment, wealth, and other benefits to coastal nations, but they're also bringing additional pressures to the ocean. They also have the potential to conflict with each other in competition for access to the ocean environment. Hence, the need for the conservation plan.

What we need are new management models that will eliminate or at least mitigate the conflicts and the increasing damage that could occur from unsustainable activities. Our informed decision-making in the future is going to depend on trusted research to acquire the new and necessary knowledge, and then ultimately push that knowledge out to all levels of society so people will understand what we're doing and how we're making our decisions. That requires a sustained knowledge infrastructure and a sustained education structure to push the materials out.

The Huntsman Marine Science Centre operates in that particular sphere. We've been in operation for over 40 years and at the forefront of both fundamental and applied ocean research. That is what we can bring to contribute to a national conservation plan. Our researchers, in collaboration with scientists from member academic organizations, private sector, and government institutions, have provided high-quality, independent, and trusted results—knowledge that goes into this decision-making process.

This has assisted in the development of our understanding of the marine environment, how it's reacting to the current stressors, and trouble-shooting of new problems as things have erupted. This has occurred in sectors from as diverse as tidal power to the aquaculture domain in our particular areas.

We also have an extensive education program that outreaches to thousands of students. Every year we've built a new aquarium in St. Andrews, which is about the Bay of Fundy, as an outreach opportunity to bring people in.

● (0930)

We're training future highly qualified ocean science personnel and distributing the knowledge to Canadian citizens through them. We're looking to a future when these ocean experts we need to do the work, and our citizens, are as informed as they need to be to contribute to debate and take on the value of the natural environment as we know it.

The take-home message is that what we have to contribute to a conservation plan is knowledge. You start with the data and you turn it into knowledge.

Huntsman helps to assist with this. It's an independent agency that consequently operates in a comfortable zone, one where people can trust it. Huntsman is not the only one; there are many here in Canada that can be drawn upon to do this. It is a very valuable resource for the country.

As a consequence, we are very, very grateful for this opportunity to speak to this committee. I thank you very much. I tried not to be redundant in all the conclusions that everybody else has already made.

Thank you.

The Chair: Thank you, Mr. Whoriskey.

I'd like to introduce the panel members. We have Mr. Woodworth and Mr. Lunney, who are with the government; my name is Mark Warawa; then we have Monsieur Choquette and Ms. Liu, who are with the official opposition, the NDP; and Mr. Eyking, who is with the Liberal Party.

We will begin our first round of questioning. Some of the questions will be in French. You have translation.

I'd encourage you to keep in mind the scope of the study in the questioning and the answers. This scope is contained in six questions: what should be the purpose of an NCP; what should be the goals of an NCP; what guiding principles should govern an NCP; what conservation priorities should be included; what should be the implementation priorities; what consultation process should the minister use? If you would, keep that framework in mind.

We will begin our first questioning with Mr. Lunney. You have seven minutes.

● (0935)

Mr. James Lunney (Nanaimo—Alberni, CPC): Thank you very much, Mr. Chair.

To all of our witnesses, thanks for a very informative.... I noticed that two of you felt you were being redundant, but actually, there's a lot of commonality in the importance of the area we're going into. I appreciate your input on this very important matter.

I want to start with Dr. Whoriskey. You mentioned in your remarks our approach respecting the ocean, where species are not what they used to be, where we overfished and then stopped fishing and they did not recover. Then you made a statement about our lacking understanding, saying that we're missing something in how ecosystems work, because the fish just did not come back.

One of your remarks is about the approach at the Huntsman Marine Science Centre involving collaboration with scientists from a broader section of the academic community. Out in our end, on the west side of the country on Vancouver Island, where I am from, we have the Bamfield Marine Sciences Centre, a collaboration of five different institutions. They do a lot of valuable work out there.

Concerning the challenges with the ocean ecosystems, we have learned a lot, but there is so much we don't know about what's happening with species out there. I'm sure others may wish to comment on this as well.

How do we get a handle on this? So much of our environment is aquatic, out in the ocean in particular. Terrestrially, there are a lot of things we don't understand fully about our ecosystems. We had a watershed approach that was mentioned by Mr. Dupuis, in terms of managing, but in the oceans there is so much we don't know.

Where do we go with that, and what kind of collaboration is necessary to really get a fix on what is happening in the oceans?

Dr. Frederick Whoriskey: You've opened a huge subject here, and I would start with how we begin to harmonize and make the most of our existing efforts. If you look to a country like Australia, you have an integrated marine ocean observing system that's pulling together all the information about the ocean conditions and about the marine animals into a single database that's accessible to everybody who's present.

We haven't even begun to think about doing something like this here in Canada. We have everything dispersed across many different forums, which means that we don't know as much as we do know about what we do know anything about. And from that we could begin to delve into finding out where the areas are that we need to provide our targeted activities.

From that point on, Canada is a world leader in many of these technologies: in ocean observing systems, the marine technologies used for the acoustic tracking of animals. We can build on those. It does take a sustained investment on the part of the country to make that one happen. My distinguished colleague Mr. Hutchings will have a lot to say about that subject.

Mr. James Lunney: Before we go on from that, I would say that on the west coast we have the Neptune project, which is an innovative program of the University of Victoria, with over 200 kilometres of cable and nodes of observation and so on along the ocean floor. You'd be familiar with that program and other tagging programs that are helping us to monitor where these fish go.

I think that's happening on both coasts, if I'm not mistaken, in terms of tracking Atlantic as well as Pacific salmon.

Dr. Frederick Whoriskey: That is absolutely correct.

Mr. James Lunney: We're hopeful, maybe with marine mammal migration and so on, that data will be helpful, as well as earthquake and other areas.

Thank you for that.

Did others wish to jump in on that subject?

Dr. Jeffrey Hutchings: I might simply mention that I think the key importance underlying your question is one of monitoring. In the absence of monitoring programs, we don't have information upon which to judge the efficacy or the utility of a national conservation program, whether it's on land or in the water.

We have all sorts of indices to measure economic quality of life in this country—GDP, interest rates set by the Bank of Canada, unemployment statistics, job creation statistics—and every month or every quarter we look at these to judge where we are. We currently do not have such indicators for the terrestrial or aquatic biodiversity realm. We don't really know where we are relative to where we were in the past and where we would like to be—in other words, what sorts of goals and indicators and operational objectives we should have.

I would hope that a national conservation plan would identify what those national conservation objectives, and perhaps biodiversity indicators, ought to be so we can then track them through appropriate monitoring programs.

I can't underscore too strongly how important such a basic element of monitoring can be for the success of your venture today.

● (0940)

Mr. James Lunney: Okay, thanks for that.

Mr. Willison, I appreciate your remarks. You mentioned the ecosystem approach: we can learn from nature's wisdoms; humans are part of nature; ecosystems include people. There is certainly a sense of that respect on the west coast. One of our first nations has a word in their language, *hishuk-ish ts'awalk*, which literally means everything is one, we're part of nature, and nature is part of us. It's kind of hard to deny that basic concept.

We're not going to have time for you to develop this. I appreciate your wiki approach. Now, I know there's some controversy about WikiLeaks. I mean Wikipedia. There are so many wikis, vikis, and now it is vatis out there. On Wikipedia, it's a work in progress, obviously, and knowledge is added and sometimes misinformation is added as well. As a professor, would you have accepted Wikipedia as a resource from your students?

Dr. Martin Willison: Oh, most definitely I would accept it as a resource. Would I accept it as the only resource? Absolutely not.

But one of the benefits of this kind of approach is it allows you to put in links to original sources. By consequence, you can find out whether a particular piece of information is valid or not valid. The proof is in the pudding, though. The fact is that the large pages on Wikipedia that are well monitored and well managed are extremely accurate. They're better than the Encyclopaedia Britannica in terms of accuracy. If you go down to the lower pages, you will find a lot of misinformation. There's no question about that.

But that's what life is like, you know, and it's also true of science. I'm a long-time scientist, and I know that something like half the papers you find in scientific literature actually contain errors—fundamental errors. That's no different from what you would find in something like this. The benefit of a wiki approach is that everybody can have access to it. Furthermore, those parts of it that are absolutely critical can be well monitored and well managed. So the proof, as I say, is in the pudding. It actually works in practice.

Mr. James Lunney: That's an intriguing concept.

Dr. Martin Willison: Thank you.

The Chair: Your time has expired, Mr. Lunney.

Madam Liu, you have seven minutes.

Ms. Laurin Liu (Rivière-des-Mille-Îles, NDP): Thanks to all the witnesses for coming here today.

Again, we've heard these threatened species priorities repeatedly, so don't worry about being redundant. It's actually useful.

I'll start my line of questioning with Mr. Hutchings.

A recurrent theme has been the importance of science. You mentioned things like the Experimental Lakes Area as being useful to conservation initiatives and the monitoring programs we need to put into place. What other science and technology tools do we need when we are thinking about a national conservation strategy?

Dr. Jeffrey Hutchings: In terms of tools and from a science perspective, I will reiterate what I said in response to Mr. Lunney's question, insofar as I do think that a national conservation plan would be well guided by having national operational objectives and the means of determining whether we're making progress in achieving those objectives.

In order to do that, I think we will eventually—and we already are doing this to some extent—make some use of remote sensing technologies, for example. We're regularly looking at satellite tracking of a variety of different things, including animals sometimes on a daily basis, through meteorological activities. But I suspect that remote sensing will become an increasing part of this. Habitat mapping of the ocean is an extremely difficult thing to do, and it's extremely early days in which to do it. We really don't have decent habitat maps of much of our ocean at all. We have the longest coastline in the world and little capacity to monitor what's happening.

To, at a minimum, get back and reiterate the importance of monitoring programs, which only government can provide—universities can't do it, since they don't have the infrastructure or the money or the long-term data sets—I think can still be done efficiently and effectively and expediently. Without that information we will have difficulty knowing whether we're achieving what we wish to achieve with a plan such as this one.

● (0945)

Ms. Laurin Liu: When you talk about satellite tracking, are you referring to something similar to Radarsat, or would you be thinking about something outside of the Radarsat satellite program?

Dr. Jeffrey Hutchings: I guess what I'm thinking of is not necessarily focusing on anything specifically, but thinking of the various forms of remote sensing technologies we have—for example, stations in the Arctic to monitor changes in ozone and sea ice changes, which of course we use satellite technology to determine.

Things that monitor basic elements of the environment in both the aquatic and the terrestrial realm are increasingly, if not almost entirely, being used from a remote sensing perspective. Once you've got those things in place, it doesn't actually cost an extraordinary amount of money to maintain them, but one needs to invest in doing that initially.

Of course it wouldn't just assist a national conservation plan, but that kind of following of what's going on in the environment would assist many other sectors of society as well.

Ms. Laurin Liu: Right. Your first point was to strengthen national environmental laws. Could you expand on that?

Dr. Jeffrey Hutchings: I think strengthening current environmental laws is fundamentally important to the success of any conservation plan, which one would naturally wish to have. Another element is the degree to which new legislation might be considered. Australia in 1999 established the Environment Protection and Biodiversity Conservation Act. It's an extremely sophisticated piece of legislation that identifies national objectives that must be met. It has a legislative platform upon which a national conservation plan could be based. Norway in 2009 passed a Nature Diversity Act providing for the management of biological, geological, and landscape diversity. I think there's a place in Canada for national legislation that articulates the vision of Canadians through the establishment of something like a national conservation plan.

Ms. Laurin Liu: Mr. Dupuis, you mentioned focusing on native species as opposed to non-native or invasive species. Yesterday, as part of our site visit, we met with Peter Darnell, a mussel farmer from Indian Point Marine Farms, and he explained to us how the propagation of invasive species has been encouraged by changes in climate, by warmer weather.

Do you think that a national conservation strategy should take climate change adaptation and mitigation into account?

Mr. Todd Dupuis: Yes. I understand there has been some movement of species around the planet because of climate changes. I think a national conservation plan should focus somewhat on trying to reduce or slow down the actual climate change that is happening now. Also, I know a lot of these species are being moved around not on purpose. But we are still moving around species that are not native, and we are doing that on purpose, to the detriment of some of the natural species that are in trouble, including Atlantic salmon, for example, which is listed as endangered in some regions of Canada and threatened in others. Nonetheless, we are still introducing species that we know are impacting these species.

Ms. Laurin Liu: What are some of the main threats to wild salmon ecosystems?

Mr. Todd Dupuis: Wild Atlantic salmon of course spend part of their life in salt water and they are certainly a true migratory fish. They spend part of their early life cycle in fresh water. Anything that impacts the watersheds, the freshwater component of their life cycle, or that impacts the oceans is impacting the Atlantic salmon. The list is long. When it comes to fresh water the issues are mostly land use and the inputs from sedimentation from farming or chemical inputs from farming or fish passage issues through the culverts or dams. When it comes to the ocean we're not quite as clear on what's going on. We know that the ocean survival of Atlantic salmon and that component of the life cycle has been reduced over the last couple of decades.

● (0950)

Ms. Laurin Liu: I'm going to interrupt you, because I don't have very much time left andI wanted to fit in one last question for Mr. Hutchings.

Do you think that a national conservation strategy should emphasize a focus on conservation habitat or on specific fish species?

The Chair: Your time is very short. If you could keep your answers short I would appreciate it, please.

Dr. Jeffrey Hutchings: Thank you, Mr. Chair.

I would say the primary focus should be one of habitat. The species are secondary. If one protects habitat for one species you are almost certainly going to be protected for multiple species.

The Chair: Thank you.

Next is Mr. Woodworth. You have seven minutes.

Mr. Stephen Woodworth (Kitchener Centre, CPC): Thank you very much, Mr. Chair.

My thanks to the witnesses today. It really is regrettable that we have such short time periods within which to have these conversations, but I'm going to take some of my time to do something a little dangerous, just because I'm so impressed.

Dr. Willison, I'm going to begin by giving you a fair amount of laudatory comment and praise. It's dangerous for both of us, for me because I don't know you well enough to know for sure if I really understand what you're saying. If I'm wrong, I'll have egg on my face. It's dangerous for you, because I have no expertise whatsoever, so any praise I give you doesn't mean too much.

I want to say how impressed I was with your presentation, not only for the manner in which you presented it, but for the content. You would have every reason, perhaps, to take a partisan approach, but I see absolutely no partisanship in this whatsoever. I don't see any of the passive-aggressive government-bashing we often see. Instead, what I see is a good analysis and a practical solution. That's what I want to talk about, because I would identify with almost everything you say—with one or two minor exceptions. If I could, this would be the kind of recommendation I might make to the minister.

Before I pursue that, I should just say for the benefit of all the panellists that we want to be sure that you understand the scope of our job today. It's really in the end only to make recommendations to the minister about how he might proceed to develop a national conservation plan. We are not, ourselves, here to develop a national conservation plan, but we want to give the minister some grist for the mill, as it were, and to give him some direction.

One of the two things I want to ask you about, Dr. Willison, is the wiki idea. I knew you were a man after my own heart when you pointed out that even ordinary science is subject to error. I agree with you 100%. I think the wiki idea could be very helpful, but what sort of a secretariat or management scheme would you have, to make certain the input was as accurate as possible?

Dr. Martin Willison: Yes, it would definitely need, as you put it, a secretariat. It wouldn't have to be a very large one. We would need technical experts who were able to manage the software component of it. We would also need what I would call a police person or a policeman who would be empowered to be able to kick off people who were disruptive, and that's quite possible to do.

Wikipedia, itself, has in the background committees of people who work together in order to clean things up. It also has a system of warnings that appear on pages that are clearly misleading.

So, indeed, you're quite right, and that's why I budgeted it actually at $500,000. That's mostly for people who are there monitoring what's going on and ensuring that the right kinds of people are having input and the wrong kinds of things are disappearing from it.

Mr. Stephen Woodworth: To tell you the truth, if I could stop you there, that's one of the minor disagreements I might have with you. I think you're optimistic about the cost. But even if it were two or three times that cost, I'd be prepared to live with it.

Dr. Martin Willison: My wife always tells me that I have to double everything whenever I estimate costs.

I brought these along for a specific purpose. I have three copies here. Unfortunately, I don't have enough to be able to give one to everybody.

These two books here were produced at no cost. We held a conference, we asked people to come to the conference, they paid registration fees for the conference, and part of the money was to give them a book at the end of the conference about what they talked about. So here are two conferences, two books, no cost.

The thing is that you can do things at very low costs when people care.

● (0955)

Mr. Stephen Woodworth: I agree.

Dr. Martin Willison: Conservation is something people care about, and that's why they'll put the effort in.

Mr. Stephen Woodworth: That's absolutely true.

The thing that strikes me about the concept you're proposing—we've heard this from other witnesses, and I think Dr. Hutchings touched on it as well—is that we lack a knowledge base. Indeed, my view is that we have a national conservation plan already. You sort of alluded to it, Dr. Willison. But it's fragmented and it's across the country, and a single cohesive location would be of great assistance.

I did want to ask you, Dr. Hutchings, what did you think of that particular plan for a way of using modern technology to try to integrate what's going on across the country in the manner that Dr. Willison has proposed?

Dr. Jeffrey Hutchings: I think it holds great promise. Key to an effort like that is the formative structure. What are the key objectives? Precisely how would the contributions of people be used?

[*Technical difficulty—Editor*]

It would be an excellent way to engage the average citizen, the citizen who wishes to contribute. And it could engage industry and businesses as well.

Mr. Stephen Woodworth: Dr. Hutchings, I see us with a knowledge gap—I think everybody identified that. Without filling that knowledge gap, I don't see how we can properly set anything but very short-term objectives. For example, I've heard people say we should protect 50% of Canada's land mass. But there doesn't seem to be any knowledge base from which to determine what we need to protect.

Do you agree that we need the data before we can properly come up with intelligent objectives, priorities?

Dr. Jeffrey Hutchings: I very much do agree. I think targets like that are important for their aspirational elements. It does give someone something to shoot for. But by the same token, those targets also need to be empirically based. There needs to be a sound information basis for identifying particular targets. If they are deemed to be arbitrary, then that is how they will be treated.

Mr. Stephen Woodworth: Exactly.

Do I have any more time?

The Chair: You have twenty seconds.

Mr. Stephen Woodworth: Well, I just lost ten of my twenty seconds. I'll stop there and hopefully get a chance later.

Sorry, gentlemen.

The Chair: Thank you, Mr. Woodworth.

Mr. Eyking, you have seven minutes.

Hon. Mark Eyking (Sydney—Victoria, Lib.): Thank you, Chair.

Thank you, witnesses, for coming today.

First, I guess if anybody's denying climate change, yesterday's tour would have been a good one to go on to see, as alluded to by the NDP, how the invasive species are coming into the mussel farms. There are ducks in there year round. They're after the mussels. We see what's happening with the acidic rivers, with the salmon.

I'm from Cape Breton, and today it was announced that Aspy River and Margaree are going to be closed for a while yet, so there's no doubt it's there. I'll ask a question later about climate change.

Another thing that's happening in Ottawa, right now we have a lot of legislation going through Parliament. One is deregulation of the small fisheries DFO is doing for small fish habitat. The other is changes are happening in Parks Canada, and I'll call it a green plan.

Whether it's cuts to Parks Canada or for the fisheries, not only the changes that are going to be made, but what changes should be made to backfill those changes, or as you go forward if there's a new green plan or some way that the environment's going to have to factor in?

On climate change, what more should we be doing internationally that we're not doing? We had suggestions yesterday about where we should be liming some of the rivers locally and doing various things.

There are two questions there. One is legislation that's currently in Parliament, your concerns over it, and what future legislation we should be working on for conservation. The second one is what we should be doing internationally on the global front on climate change.

I only have seven minutes. I only have one round, so if you can do it in a minute each it would be fine with me.

● (1000)

Dr. Jeffrey Hutchings: I'll begin. Thank you for the questions. It's a two-part question with respect to current legislative changes.

I do envisage a weakening of environmentally based legislation. Thus, from a national conservation plan side of things, I would be concerned in terms of the degree to which, whatever objectives and aspirational qualities are part of such a plan, it might reduce our ability for it to have the accountability element—and indeed, the enforceability element—associated with a national conservation plan.

With respect to climate change, from an oceanic perspective Canada has the longest coastline in the world. We probably have the largest seas in the world—estimated at about 7.1 million square kilometres—so we do indeed have this international real estate stewardship issue. I think it would be extremely important, nationally and internationally, for Canada to take leadership on climate change issues.

One of the key ways in which that fits into a national conservation plan is in one of the priorities I suggested, and that is to make a commitment to rebuild depleted populations, species, and degraded ecosystems. That is probably the only thing we will be able to do as a people and as a country in order to combat or allow ecosystems to respond and adapt to climate change, to have healthy ecosystems. It is not just good from a biodiversity perspective, but it's good from a social and economic perspective as well.

Dr. Martin Willison: I'm happy to pick up on this.

First of all, it's important to recognize that environmental variability is normal. And secondly, environments adapt. In other words, species and biodiversity adapt to change.

How do we therefore build a system that is able to be adaptive? We need protected areas, we need systems of protected areas, and we need linked systems of protected areas, so that as environment changes it's possible for species, organisms, and systems to move within that system of protected areas. That's the adaptive approach.

Regardless of what will happen with respect to climate change in the future, we can certainly expect the climate to change. But as to what will happen, we don't absolutely know. By consequence, what we need is a framework that allows for change to occur or assumes that change will occur and allows for adaption.

Dr. Frederick Whoriskey: I'm falling into that redundancy problem again.

However, I will come back to the issue that Jeff has raised earlier about how you need your plan with your metrics so that you know what you've got, and then you can tell what you're losing if something is being cut here.

From my perspective, to answer your first question, in terms of developing new legislation processes, thinking about the oceans, about something that captures and forces an integrated coastal zone management or ecosystem management, whatever way you want to put that together, it's something that is going to be very important. Drive it similar to what you did with the Oceans Act, but push this forward so we develop out of that, plan the metrics, the other tools that we can use to assess what's going to happen if we cut or we do not provide the resources necessary to carry forth.

With regard to the climate change issue, yes, I agree with everything that's been said here before, but what I do know, especially in zones like the Arctic, where we're operating right now, is things are changing very rapidly. We need to put some resources into helping these local populations to cope with what's going to happen in the immediate short term, to understand how their lives are going to be different five years from now, ten years from now, while also trying to get to the point that we wrestle to the ground the commitments we need to make to control our own impacts.

Thank you.

Mr. Todd Dupuis: I'm not qualified, really, to talk about climate change. I do want to talk about, though, one of the points you did mention, and that's the budgetary rollbacks we're experiencing with the various federal departments.

For an individual who has spent 20 or so years walking rivers with waders and helping community groups, what's happening with those budgetary rollbacks is that the technical people in both provincial and federal governments are disappearing. These are the people who used to be on the ground providing technical advice for groups. The NGOs, who are doing yeoman's service in the field, restoring the habitat, carrying the burden of these rollbacks, are crying for technical advice.

So that's the biggest thing I see. They need the advice. They want to do the right thing. They have some resources. They have a lot of energy. But they need to either be trained or have someone go and tell them what to do. Over the last decade or more, and certainly with the latest round of cutbacks, we're seeing that this capacity has almost disappeared.

● (1005)

Hon. Mark Eyking: We've seen that, yes.

Thank you.

The Chair: Your time has expired. Thank you.

[*Translation*]

Mr. Come Choquette, you have five minutes.

Mr. François Choquette (Drummond, NDP): Thank you, Mr. Chair.

I wish to thank the witnesses for being here today.

I have many questions and comments. Obviously we have to fight climate change. We have travelled across the country and met with people who have told us that the fight against climate change is still crucial. I think that it should definitely be part of the national conservation plan.

We spoke a while ago about what our targets should be. They are easy to identify: they are part of the Aichi goals. We have signed an international agreement, and I hope we are going to comply with those targets.

My question is for Mr. Hutchings. At present, only about 1% of marine areas are protected, whereas the Aichi target is 10% by 2020. What are your recommendations for improving our performance in the protection of marine areas?

[*English*]

Dr. Jeffrey Hutchings: Thank you, Monsieur Choquette, for your question.

Your estimate of 1% is actually an overestimate, if I may. In fact, we have protected officially approximately 0.8% of the aquatic waters in Canada, but about 0.3% of that is actually in fresh water. So we've probably protected one half of 1% of our marine waters, as opposed to almost 10% terrestrially.

Indeed, one of the Aichi targets is to achieve a 10% network of protected marine areas in Canada. One of the conclusions the Royal Society expert panel made in February this year looked specifically at that target and evaluated the likelihood that Canada would meet it. It's highly improbable that Canada will meet that particular target. In the eight years remaining, the pace and the energy does not seem to exist in order to protect the size of area required to meet that target, so it's quite unlikely that we will do so.

[*Translation*]

Mr. François Choquette: What would you recommend for ensuring the best possible protection of marine areas? At present, as you say, we are really behind. What would you recommend to the committee for improving our plan, quickly?

[*English*]

Dr. Jeffrey Hutchings: I think what we should do for now is we really need a Canadian discussion of this with the public. What's in the oceans belongs to all Canadians. The Supreme Court of Canada has made that very clear. It doesn't belong to industry. It doesn't belong to individuals. It belongs to Canadians. So Canadians have the stewardship responsibility to look after the oceans on a national and global basis.

One of the really good reasons for setting aside areas of the ocean from a protection perspective is simply to hedge against what we don't know, to hedge against our ignorance. There's a lot of work, and sometimes I think maybe too much work, in focusing on exactly where should we have this area or where should we have that area with sometimes the intention of helping fisheries. You're not going to help fisheries in many cases.

I think we have enough scientific information to ask Canadians if they think it's appropriate that we set aside the same percentage of our oceans that we do for our land.

[*Technical difficulties—Editor*]

In essence, is that an appropriate reflection of who we are as a society? We do have the 10% of our terrestrial land protected, and perhaps Canadians might feel the same would be appropriate for the marine realm, but we should ask them.

[*Translation*]

Mr. François Choquette: Thank you for your answer.

Yesterday, we were on the road. We went to Miscou Island, and Sackville River. Someone explained to us that it was important to have access to the scientists at Fisheries and Oceans Canada. Yesterday we learned that more scientist positions have been cut at Fisheries and Oceans Canada.

How can we have a credible national conservation plan if there are always cuts in science, for example, among the positions at Fisheries and Oceans Canada? I do not think that is helpful. What do you think?

● (1010)

[*English*]

Dr. Jeffrey Hutchings: Well, I think there's no question that cutting back on the science capacities of government will hinder the development of a national conservation plan. In order to identify the objectives and targets for any type of plan, whether it's a marine protected area plan or a terrestrial biodiversity plan, we are ultimately reliant on government knowledge, and that comes from government science departments. They are the repository of this information over the last several decades, if not half-century and beyond. As I said earlier, private institutions, businesses, and academia simply do not have the capacity, knowledge, or experience to provide Canadians and the government with the information it will undoubtedly require to do the job properly. The weakening of science does not bode well for the establishment of a credible and defensible plan.

The Chair: Thank you. Time has expired.

Next is Mr. Lunney. You have five minutes.

Mr. James Lunney: Thank you.

There's lots of food for thought here from all of you. Thank you very much for that.

Thank you, Dr. Willison, for your comments about adaptation, that ecosystems adapt, that species adapt, but we need to create a framework to optimize that adaptation, if I can paraphrase what you've said. It's on the record, so we appreciate those thoughts.

I want to direct a question to Dr. Hutchings, because we have someone who's experienced with COSEWIC here, who was a chair from 2006-2010. I want to throw a little question out to you.

On the west coast, with our organization similar to Huntsman, we had the Bamfield Marine Science Centre, and we had a species at risk: abalone. We had a Bamfield Huu-Ay-Aht abalone aquaculture project. DFO helped to fund this. They creatively found a way to grow these creatures in an aquaculture setting as a first nations opportunity. They could stain the shells a different colour by feeding them different coloured seaweed, so you could differentiate them from the natural abalone. Regrettably, to sustain the program you have to be able to sell these creatures into a high-value market.

One of my frustrations as a local MP was we could not get COSEWIC to make a decision to allow for the sale of these endangered species, or to allow for aquaculture to contribute, because if you put these animals back into the wild environment, they'll eat the local kelp and develop a normal-coloured shell, so you couldn't differentiate the aquaculture ones from the others.

Do you have any explanation that maybe would help me understand how that could happen? Secondly, how can we have decision-making that allows for recovery of species through creative programs that would help to create a local economy, especially for first nations, and get past a rigid "endangered: we cannot use them commercially"?

Dr. Jeffrey Hutchings: Thank you for the question.

Certainly the question of what COSEWIC does and the consequences of COSEWIC's assessments are of course not part of the COSEWIC decision-making process. COSEWIC is charged, under the act, with making species assessments on the basis of the best available scientific evidence that pertains to the status of those species.

The consequences from a social, economic, political, or financial perspective are not, under the act, meant to be part of the COSEWIC assessment decision-making framework. So if COSEWIC assessed abalone, it would be in a way that uses the same information and framework it would use to assess any other species, following criteria used by the International Union for Conservation of Nature, the IUCN.

Of course the assessment COSEWIC assigns to a species depends on the current status of that species relative to a series of criteria. Under a recovery strategy, if that recovery strategy is working, and a species has moved from an endangered or threatened level to a level at which it has met its target under the recovery strategy, then of course it would be down-listed by COSEWIC.

Almost irrespective of what COSEWIC does, government actually has a lot of tools available to it, both at the provincial and federal levels. With respect to abalone, I seem to recall discussions with some government officials regarding permits and permitting and the fact that the real stumbling block—and you might wish to look into this further—has to do with the permitting process at both the provincial and federal levels.

I can't speak in more detail about that now, simply because it's been a couple of years since I was fully familiar with it.

● (1015)

Mr. James Lunney: I appreciate those remarks, but perhaps there's something there we have to get around in order to find creative ways to help the economy and the recovery of the species.

We saw some great examples of habitat enhancement yesterday at Micou's Island. There is the Sackville Rivers Association, where great enhancement work is done. On the west coast we have the Pacific Salmon Foundation. They do a lot of great work. Our committee was out there a few weeks ago looking at salmon enhancement and habitat improvements on the east coast of Vancouver Island in particular, and some on the west coast of the island.

So what can we do? In the 2007 budget we had $225 million to partner with organizations to protect sensitive lands. This leveraged an equivalent amount of money for the Nature Conservancy and Nature Trust and many other good organizations. They were able to partner with groups like Ducks Unlimited and others to save sensitive lands.

Does this group have suggestions on how we can help to meet those objectives by partnering to save and enhance more sensitive areas?

Dr. Martin Willison: I'll be happy to jump in briefly on this one.

You mentioned Nova Scotia Nature Trust, which is an organization created in Nova Scotia for that kind of purpose. The problem is that done privately it's very expensive, and in practice relatively small advances have been made. The great part of it is that it involves communities, so that people get involved in it. So to some extent we make relatively small progress from an environmental perspective, but we make a lot of progress from a social perspective.

I would say that yes, it's a very good way to deal with things. On the other hand, if you put all your eggs in that basket, it won't work.

The Chair: Your time has expired. Thank you.

Madam Liu, you have five minutes.

Ms. Laurin Liu: Thanks.

Going back to Mr. Hutchings, you said in the report published by the Royal Society of Canada that the government should take measures to limit the “discretionary power” of the Minister of Fisheries and Oceans and to resolve the “conflicts of interest” inherent at the ministry. What exactly are you making reference to, and what are some solutions for this problem?

Dr. Jeffrey Hutchings: I suppose what the panel was referring to there was the fact that there is no legislation in place, such that when a certain set of circumstances arises the minister must act in a particular way. Unlike the Species at Risk Act, for example, which is highly prescriptive, the Fisheries Act is highly discretionary. Whenever the minister faces a decision—a quota decision, where to put an MPA, and so on—it's ultimately up to the minister himself or herself. Often this is not even something ministers would actually like to have to deal with on a daily basis, but they do.

There is legislation. A good example is in the United States, where for overfishing and things of that nature, there are legislative requirements to set targets that must be followed by government. That kind of underpins what the Australia biodiversity and conservation legislation has as well. Norway is also attempting to achieve this. New Zealand has made steps.

Again, to underscore what I said earlier, not only might some form of legislative reform or revision, or perhaps a new piece of legislation, assist the current committee's activities and the minister's attempt to come up with a credible national conservation plan, but I think some attention to the discretion afforded to some ministers is something that's worth examining as well.

Ms. Laurin Liu: Great.

When you talk about monitoring programs that are essential for a national conservation strategy, who should be responsible for these monitoring programs? Should it be someone independent from the federal government?

Dr. Jeffrey Hutchings: The greatest challenge there is money and infrastructure. Other groups could certainly do the work if government were willing to provide the work. So a good example is the polar continental shelf project of Natural Resources Canada, set in Resolute in the Arctic. Fundamentally—and it's something I've personally taken advantage of as an Arctic researcher—this is a base that provided everything from planes to helicopters to boats to gasoline, in order for researchers to work in the Arctic. So the Arctic is a great example of a place where, in the absence of government infrastructure support, Canadian scientists and researchers and ENGOs simply will not be able to do the work on their own.

So I think government at a minimum has to provide that financial and infrastructure basis to allow either government scientists or others to do some of the monitoring work.

● (1020)

Ms. Laurin Liu: Okay.

Sticking to the theme of science, have you seen a shift, in terms of funding, from basic science to applied science? That's to you and to the other witnesses as well.

Dr. Whoriskey, perhaps you have a comment on that. Have you seen this shift, and if so, has this shift influenced your work and that of your colleagues? As well, when we're talking about a conservation plan and biodiversity, should we ensure that basic science does maintain its funding and maintain what it needs to continue?

Dr. Frederick Whoriskey: Yes, there has been a shift from basic towards applied science. The innovative scientists who are out there are basically trying to find ways to cope with this by squeezing in as much fundamental science...as part of their basic sciences.

As part of this, I perhaps work in a fortunate world right now, where the project I'm on, the ocean tracking network, is developing Canadian technologies—i.e., there are products we are selling globally that are magnifying the investments we're putting into our research by a factor of probably ten for every time we do things, while also generating a lot of really fundamental knowledge that has applied implications to it as well. Somehow we've managed to fuse all of that into place.

That's not to say that I do not believe in the fundamental research. I believe very strongly in it. It's where the great new ideas—the RIMs, and even the basic technology we're using as part of the supply network, the ocean tracking network, the sonic telemetry equipment—came from. So we have to keep that going.

Dr. Jeffrey Hutchings: If I may, I would say very briefly that I do think that there's actually incredible value in having basic government researchers work with government researchers, industry researchers, and so on. As Fred indicated, the goals of both can potentially be achieved, but the way we're currently doing things, which is requiring increased funding on the part of businesses to contribute to programs, puts an undue pressure on business and industry, and an increased movement in that area also takes away from basic discovery-oriented research. In fact, a novel and innovative way to think about this is how the two objectives can indeed be defined. We used to have that under the NSERC strategic grants program, which still exists, but it exists in a different form today. I think both objectives can be achieved if we have the will and the desire to do so.

The Chair: Thank you. Time has expired.

We now have Mr. Woodworth for five minutes.

Mr. Stephen Woodworth: Thank you very much.

Just as an aside, the one piece I didn't get to mention to Professor Willison, and I should have, is that I am also not as optimistic as you about the timeline that you have set out. But having said that, I think that if I were constructing the plan I would construct it with short-term and long-term and intermediate-term objectives.

However, I'd like to speak with Mr. Dupuis for a few minutes, if I may, about the funding issue that he mentioned.

I confess, I'm not as familiar with DFO as I am with Environment Canada, because on this committee we deal more often with the environment department. But you mentioned a $12 million per annum figure, and I think I understood that to be a contribution by DFO to salmon fisheries. I'm not entirely sure. Could you elaborate on that?

Mr. Todd Dupuis: It is the figure provided by Ottawa, by DFO, and how much the federal government spends on conservation and protection of wild Atlantic salmon. It's not a donation, by any means, to groups, but it's the money the federal government spends on its role in protecting wild Atlantic salmon. And that has actually decreased by about 75% since about 1985.

Mr. Stephen Woodworth: That was going to be my next question. It was decreased by 75%. That would suggest it was $48 million in 1985.

Mr. Todd Dupuis: It was $25 million in 1985, but if you take into consideration the cost of living, it's about a 75% reduction today, at $12 million.

Mr. Stephen Woodworth: Do you happen to know what it was five years ago?

Mr. Todd Dupuis: I do not know what it was five years ago, but I could probably get that figure for you.

Mr. Stephen Woodworth: I'd be interested in it, because at least on the environment department side, the government has been increasing the budget for the environment department year after year for the last six years, and even this year there is no reduction in the environment department budget. I cannot speak to the Department of Fisheries and Oceans, however.

One thing I wonder about, though, is whether you have been looking at this from a whole systems point of view. When you talk about the reduction in technical support capacity, I'm sure you're aware that the government's responsibilities include enforcement, actually establishing protected areas, research, other conservation projects, assessing projects, things like GHG monitoring, GHG regulation, clean air and particle pollutant cleanups, contaminated site cleanups, invasive species, weather monitoring, media requests, oil sands monitoring, international negotiations, specific court-ordered actions, clean energy research, climate change reparations to other countries.

How do you propose to prioritize the technical support capacity in among those other things, sort of like draining the swamp when you're up to your hind end in alligators? What do you consider the alligator and what do you consider the swamp?

● (1025)

Mr. Todd Dupuis: Right. It's certainly a tall order.

Mr. Stephen Woodworth: It's the order we have to fill, unfortunately.

Mr. Todd Dupuis: Yes, I understand.

When it comes to prioritizing the technical stuff, I am a person who has spent two decades getting his feet wet, walking streams, and helping community-based groups—these NGOs such as ASF, TU, and right down to the watershed organizations that have adopted their watershed and have taken it upon themselves to try to restore and protect their backyard. These are the landowners in the watershed. These are the folks who are picking up the pieces as governments—and not only federal governments but also provincial governments—roll back their budgets.

These groups, in my mind, are going to be the delivery mechanisms for the conservation programs in the future. It makes reasonably good sense, because they are the landowners. We think they would be more effective at delivering programs, because they are local, as opposed to DFO driving in with a 9-millimetre strapped to the hip. It's always easier to have a community leader approach landowners in the community to make, perhaps, changes with land use.

But these groups are lacking technical expertise. The more we study these ecosystems and watersheds, the more complicated it is. We need people, such as hydrologists or geomorphologists, to go in, do assessments, and determine what needs to be done in the backyards of these watersheds and to provide that expertise to the community groups.

Mr. Stephen Woodworth: I'm inclined to agree with you, but I hope everyone understands that in a real world of constraints, if we were to increase technical support to conservation delivery, which personally I wouldn't mind doing, other things might need to decrease.

We have great pressure on us at the moment to put money into clean energy and greenhouse gas reductions, which are of course entirely unrelated to technical support for conservation. I'm getting the yank, so do you have a quick response to that?

The Chair: Unfortunately, time has expired. Sorry.

I want to share with colleagues that I'm going to be suspending the meeting in a moment. CBC and CTV—excuse me, Global—will be coming in right after I suspend. If you would stay in your seats, those who don't mind having their picture taken—I'm understanding it's just a picture—they want to use that to show that the committee is meeting in Halifax and dealing with the issue of a national conservation plan.

We will suspend. We will come back at 10:45 and look forward to further testimony.

● (1025)

(Pause)

● (1045)

The Chair: I call the meeting back to order.

This is the 38th meeting of the Standing Committee on Environment and Sustainable Development as we study the development of a national conservation plan for Canada.

We want to welcome the witnesses and thank them for being with us today. This is our second round of hearing from witnesses.

We will begin with ten minutes from the Conservation Council of New Brunswick.

Mr. David Coon (Executive Director, Conservation Council of New Brunswick Inc.): Good morning, everyone. Thank you so much for coming to the Maritimes.

Yesterday I was telling my daughter Laura, who's 13, that I was coming to Halifax, because she always complains that I tell her at the last minute when I'm going away. She said, "What for?" I said, "To speak to members of Parliament." She said, "That's amazing", not because I was speaking to members of Parliament—over my career I've done that numerous times. She said, "You mean they come from Parliament to the Maritimes? That's amazing." So thank you for coming to the region and getting off the Hill to tour the country on this important topic.

It's appropriate that you begin your hearings here in Atlantic Canada, because of course this is the site of Canada's greatest conservation failure—that is, the widespread collapse of many of our fish stocks, including most species of groundfish, the Bay of Fundy salmon, wild oysters, and our inshore herring. That catastrophe has taught us that the environment's not a luxury—environmental protection's not a luxury or a side issue or a competing demand—but in fact the environment's rather the source of our lives and the source of our economy.

I'm going to sketch out here, using your framework, some thoughts on the elements of a national conservation plan. The first question was what should the purpose be. In our view, the purpose certainly should be to address the problems we have identified, both the damage that has occurred to date to ecosystems in Canada that therefore require restoration and the threats that face intact ecosystems. By ecosystems, I mean our forests, lakes, rivers, wetlands, coastal waters, ocean regions, and estuaries.

Fortunately, some of your work has been done for you. You have great information on where we're at because Environment Canada and DFO both have led pretty weighty pieces of work to synthesize the best science Canadian researchers have come up with to look at the status of ecosystems on land, in our fresh water, and in our salt water, all over this country and on all our coasts. This is thanks, on the Environment Canada side, to Dr. Risa Smith and her colleagues from Environment Canada's ecosystems and biodiversity priorities group.

Dr. Smith and her colleagues have been involved in this vital synthesis and assessment of the state of our ecosystems. In 2010 they published a summary document. I distributed this some time ago to the committee by jump drive—I hope those got to you—entitled “Canadian Biodiversity: Ecosystem Status and Trends”. Since that time, a whole series of technical reports has been published and posted on the website biodivcanada.ca. The regional reports for each of our regions will soon be published there as well. It is a tremendous amount of work.

At the same time, federal scientists from DFO have undertaken a similar exercise, building up from our ocean regions publishing essentially status and trends reports or report cards, if you like, on our ocean regions right across this country. That was synthesized into a summary report the same year, 2010, “Canadian Marine Ecosystem Status and Trends”.

Taken together, the key findings from these report cards really do define the problems that we think a national conversation plan needs to address. I'll give you a few examples. These don't all fall within federal jurisdiction. Some of them are provincial. For example, the capacity of our forests in southern Canada to regulate water flow has been greatly diminished. That's obviously a concern for flooding and dealing with the intense rainfall events we've been having lately on this side of the country. Wetlands are diminishing across the country, so the essential services they provide in controlling floods and sequestering carbon are being diminished.

Coastal ecosystems are something we've done a lot of work on ourselves at the Conservation Council. We are experiencing tremendous problems with simplification, nutrification, and dead zones in our bays as a result of excess nutrient loading, undermining the productivity and partly resulting in the collapse of our oyster fisheries.

We're hearing a lot about marine ecosystems today. We have carbon loading—causing acidification, ocean warming, change in the currents, and upwellings—which is fundamentally affecting the availability of nutrients to the entire food chain. Those food chains are changing dramatically, in part because of overfishing and the fishing technology that's being used.

So the purpose of a national conservation plan must be to address these kinds of problems that have already been identified in the key findings in this report card.

● (1050)

With respect to the goals of a plan, I think it's relatively straightforward. It was 20 years ago, just after the Rio Earth Summit, that scientists issued what they called the warning to humanity. It was quite dramatic and grandiose: 1,600 scientists, 70 countries, 102 Nobel laureates basically said that humans are on a collision course with the natural world, and if not checked, our current practices put at serious risk the future for human societies and may alter the living world in such a way that it will be unable to sustain life in the manner that we know. We're coming to that, and that's some of what these key findings in the reports are identifying.

It's interesting that 1992 was the year that the collapse of the northern cod was acknowledged. That of course erased 40,000 livelihoods in our region, which we tend to forget about nationally now, signalling the ecological dysfunction in our ocean waters that plagues us still.

I realize it's unfashionable to speak in terms of an ecological crisis. It's far more fashionable to speak about an economic crisis, because we've got one. But we have an ecological crisis, and it's not going away, it's only deepening.

So I think the way to think about this—and this isn't to be a doomsayer—is to simply say we need to follow a different path. We need to recognize that as a society in Canada, like everywhere else, we are embedded in the environment. We don't live outside of the environment, we're not apart from the environment, so we have to change the way we do our business.

A national conservation plan must be the context, then, in which government makes decisions around its other priorities overall. If we're embedded in the environment, surely that's how we need to organize our decision-making in terms of creating a context. Already we know habitat destruction, excess nutrient loading, and greenhouse gas emissions have exceeded tipping points on a global scale and that we need to pull back.

So in terms of goals, a national conservation plan should set us on a different path. It should change the relationship we have with nature, but fundamentally be designed, as goals, to maintain the ecological integrity and resilience of our ecosystem and to restore the ecological integrity and resilience of those that have already been degraded.

Those two goals, to me, would be the centre points for a national conservation plan, and decisions taken by government would proceed with these goals in mind.

With respect to principles, I can't think of better principles than those that are enshrined in the Earth Charter, written in 1992. It's been endorsed by thousands of organizations, representing tens of millions of people, including the City of North Vancouver and the Sisters of Charity right here in Halifax. This gives you a sense of the diversity of support for these fundamental principles. You can read them, and I'm sure you will: principles such as respect, caring, love—if you get love in your report, it's great in my books—fairness to the future, and so on. You'll read it, I'm sure.

As far as conservation priorities are concerned, I think it's great timing for this committee. We signed on, as a nation, to these targets under the Convention on Biologicial Diversity back in 2010, at the Nagoya biodiversity summit.

I distributed the brochure on the targets to you. We as a nation will be submitting our biodiversity framework about how we're going to pursue those targets very shortly to the convention. It's going out for consultation to national stakeholders in a couple of weeks. I believe it contains about five goals, maybe fifteen “Made in Canada” targets specific to our reality here. I encourage you to get hold of that, look at it, and maybe invite someone from Environment Canada to speak to it.

Finally, on implementation priorities, I think there are two key things for implementation. A national conservation plan really needs a legislative agenda, a statutory basis for protecting and restoring our ecosystems. In doing so, it would provide a long-term comprehensive and legal framework for conservation and sustainable use of our ecosystems.

As Jeff Hutchings already mentioned, Australia and Norway both have adopted laws similar to what I have in mind here, which are designed to sustain and rebuild ecosystems in their countries. In particular, Norway's Nature Diversity Act is very interesting. It sets overall management objectives for ecosystems, within which government decision-making takes place. It gets away from just a singular focus on those species or habitats that are dramatically endangered but essential to our health, well-being, and wealth.

● (1055)

There needs to be a legislative agenda and some kind of institutional framework that spans government departments at the federal level to implement and deliver a plan to get away from the silos that often exist within departments—so, some new institutional agreement.

Finally, in closing, I just want to say that as a parliamentary committee, you have a tremendous opportunity here to be a catalyst for discussion in this country about the need for a national conservation plan to deal with the ecological crisis. It's something we can come to grips with in Canada. What we do here can matter. Your predecessors in the 32nd Parliament, the subcommittee on acid raid, published a report called *Still Waters* that catapulted action on acid raid in eastern Canada, from Manitoba east. It was a bestseller. It was in bookstores, if you can believe it—a report of a parliamentary subcommittee, not even a full committee, in bookstores. It captured the imagination of Canadians. That's something your committee could aspire to. I look forward to reading your report in my local bookstores.

Good luck with this. And again, thank you for coming to the Maritimes.

The Chair: Thank you very much.

Next we will hear from DFO. We have Mr. King and Mr. Burgess.

Mr. Steve Burgess (Acting Director General, Ecosystem Programs Policy, Department of Fisheries and Oceans): Thank you, Mr. Chair.

I'll speak on behalf of the department, but both Marty and I are available for questions, obviously, at the conclusion of this.

Thank you for inviting us to speak here today about the role of the Department of Fisheries and Oceans in marine conservation.

What I thought I'd do is provide you with an overview of the department's approach to aquatic conservation in Canada, and also our perspectives on a national conservation plan. I would like to start by summarizing the department's role and views on marine conservation by highlighting three themes that are implicit to all of our work within the department.

First, I think it's fair to say that DFO is the lead federal department in the protection and management of fisheries and in the conservation of aquatic ecosystems nationally, both marine and freshwater. Second, DFO is of the view that conservation and economic prosperity go hand in hand: healthy environments lead to healthy economies. Third, DFO's programs for aquatic conservation and fisheries management are geared towards what we are referring to as an ecosystems approach. I thought I'd elaborate on each of those themes.

The department's role in implementing the Oceans Act, the Species at Risk Act, and the Fisheries Act places the department in a federal leadership role for aquatic conservation and the conservation of aquatic ecosystems. In our capacity as lead federal steward, we advance, conserve, and protect sustainable aquatic ecosystems. We do this through multiple program areas such as fisheries management, aquaculture management, ecosystems and fisheries science, our species at risk and oceans programs, and in our work, for example, with aboriginal groups.

DFO recognizes that conservation of our valuable aquatic resources is a responsibility shared by all Canadians. We can't do it alone. To be effective, conservation activities must engage all responsible authorities as well as affected and interested parties. Engagement is required at all stages of policy and program development, implementation, and coordination, and at all levels: locally, regionally, nationally, and internationally.

To achieve the support and buy-in for conservation activities that may impact economic activities, we need to ensure that those impacted are part of the decision-making processes, that their needs are well understood, and that alternatives that can achieve conservation objectives while allowing economic activities are properly evaluated.

Freshwater, marine, and fisheries expertise isn't found only within the Department of Fisheries and Oceans. It's found in conservation groups; it's found in provincial agencies, and so forth. We rely more and more on the support and participation of the academic community, environmental non-government organizations, conservation organizations, and other levels of government, to share knowledge, to develop solutions, and to implement conservation activities.

For these reasons, the department takes a shared stewardship approach to its relationships with other levels of government, the users of ocean resources, fish harvesters, aboriginal groups, aquaculture operators, and the Canadian public at large. In our view, we must all work together to conserve and protect aquatic ecosystems and to manage the impacts of activities on our valuable aquatic resources. In summary, the scope, scale, and importance of conservation really demand a collective effort.

I think the efforts required to promote conservation are well illustrated by the establishment of marine protected areas, as one example. The department, on behalf of the Government of Canada, has established eight marine protected areas through participatory and collaborative processes, and a further seven marine protected areas have been identified for future designation through similar processes.

● (1100)

I think it's important to stress that the establishment of marine protected areas is not just a departmental effort, but a collective effort involving industry sectors, conservation organizations, provincial organizations, and others. To some extent, that's our challenge in developing marine protected areas' needs across the board. DFO is also leading the establishment of Canada's network of marine protected areas based on a national framework, which has been developed through federal, provincial, and territorial collaboration. The network will consist of 13 bioregions and will include existing federal, provincial, and territorial marine protected areas and other area-based conservation measures—for example, fisheries closures that can contribute to network objectives.

The overall goals of the network are to provide long-term protection of marine biodiversity, ecosystem function, and special natural features; to support the conservation and management of Canada's living resources in their habitats and the socio-economic values and ecosystem services they provide; finally, to enhance public awareness and appreciation of Canada's marine environments and Canada's rich maritime history and culture.

I've provided committee members with a copy of a report entitled “Spotlight on Marine Protected Areas in Canada”, which is illustrative of some of the work that's happening in this area. Certainly if the committee is interested in further information, we can provide that at your request.

Biodiversity is a fundamental element of conservation, and DFO's contribution to the conservation of aquatic biodiversity is supported, for example, by the Species at Risk Act. Our colleagues in Environment Canada and the Parks Canada Agency have already spoken to you about the Species at Risk Act, I believe. Like Environment Canada and Parks Canada, DFO must propose listing decisions and then produce recovery strategies and action plans for aquatic species listed as endangered or threatened and management plans for species listed as a special concern.

Approximately 103 aquatic species have been listed under the Species at Risk Act. In the Maritimes region, some notable listed species include the Atlantic blue whales, North Atlantic right whales, northern bottlenose dolphins, inner Bay of Fundy salmon, and the leatherback turtle. All of those are protected under the Species at Risk Act.

Recovery strategies have been produced for 68 of the aquatic listed species, with some action plans completed or near completion, and management plans have been produced for 35 species of special concern. Through development of these documents DFO engages affected and interested individuals and groups, generates an understanding of issues associated with these species at risk, and attempts to garner support for recovery actions.

To increase the engagement of Canadians in the protection and recovery of species at risk, DFO and Environment Canada support stewardship through the habitat stewardship program and the aboriginal funds for species at risk. I think these are important aspects of the program. Combined, these two funds will invest $7.3 million this fiscal year while leveraging an additional $15.5 million in more than 150 conservation projects across the country.

The aboriginal fisheries strategy and the aboriginal aquatic resource and oceans management programs are other examples of how DFO makes significant investments annually to engage aboriginal groups in monitoring, reporting, and enforcing efforts to protect ecosystems. As valued partners, aboriginal groups play an important and sometimes critical role in DFO's promotion of sustainable fisheries and the oceans sector.

The department continues its leadership role in aquatic resource conservation through the important work on the conservation and sustainable use of fisheries. In collaboration with the fishing industry, DFO has developed a sustainable fisheries framework. This overarching framework incorporates existing fisheries management measures with new policies and tools. It also includes tools to monitor and assess initiatives geared towards ensuring an environmentally sustainable fishery and identifies areas that may need improvement.

● (1105)

I will go to the conservation plan now.

The Chair: Your time has expired. Do you want to answer those questions during the question period?

Mr. Steve Burgess: Sure. Thanks very much.

The Chair: Thank you.

Next we have the Newfoundland and Labrador Wildlife Federation. You have ten minutes.

Mr. Ward Samson (Member, Newfoundland and Labrador Wildlife Federation): Thank you.

My name is Ward Samson. I'm past president of the Newfoundland and Labrador Wildlife Federation, which was formed in 1962. We're affiliated with the Canadian Wildlife Federation.

For a number of years we have been asking for equal and unimpeded access to our outdoors in Newfoundland and Labrador. We firmly believe that hunters and fishermen and fisherwomen should have access to our land to enjoy outdoor pursuits.

We also firmly believe that we must manage our wildlife so that future generations have those resources to use and enjoy. Unfortunately, over the number of years that we've been part of Canada, those resources and freedoms have been fraught with the mandates of industry and special interest groups, which have dictated government policy both federally and provincially.

In 1949 we joined Canada as the tenth province. On three occasions before that, we didn't join. Canada wanted us, but we said no, we didn't want to come. But we did join in a plebiscite in 1949. I would like to remind the people present and all of Canada that for almost 500 years the fishery was the mainstay of Newfoundland and of the rest of Europe, South America, North America, and the Caribbean. We didn't have a real federal fisheries presence until 1953. They became less minuscule because they had some details to work out with the Canada and Newfoundland agreement. It was not until the 1970s that we had a big fisheries presence in Newfoundland.

As you all know, in 1992 we had a cod moratorium—no more fish to catch. Canada managed our offshore fishery for 39 years. We had managed it for 500. Thirty-nine years, and nothing left—done, over with, can't catch any more fish. Occasionally we can take a few cod, five fish per day; that's it, no more, no less.

How did Canada destroy this fishery for Newfoundlanders? Some of them are at fault too; don't get me wrong. In 39 years—not 500, not 100, but 39—gone, no more fish. There are mounds and mounds of reports that would explain why, maybe, but the reality is mismanagement of a resource by central Canada's government policy and the Newfoundland government's policy. Today, from our perspective, we cannot even get a fish to eat without going through many federal government hoops.

I participated in a province-wide protest about five years ago. I didn't get charged, but we don't have to have a licence any more. We can catch five fish, but we don't have to have any more tags for our cod. Nova Scotia gets 11 months. What do you think of five weeks? Why is this gap between provinces? I don't understand it.

When we talk about sustainable development, we must reflect animal movements and have no artificial borders put in place by governments and bureaucracies.

● (1110)

I don't think the codfish understand that they are Newfoundland and Labrador fish. When they reach close to Nova Scotia, do they say that they can't cross the border? Do they say “We are Newfoundland and Labrador fish, and we cannot cross the border”? I think not.

We cannot manage for fish alone. Sustainable development must manage for people. We have to manage for people, not fish. People want equal and fair treatment.

Do we sell farm tractors to other countries in return for cod quotas—which they did—on the Grand Banks? Maybe it wasn't your government, but they did it.

Do we ensure that landlocked countries in Europe get fish to eat and have a codfish quota—which they did?

Do we insist that an inshore fishery fleet in Newfoundland harvest cod on the spawning grounds in winter time—which they did? Five friends of mine drowned in a boat off the south coast of Newfoundland harvesting cod in the winter. They were on the spawning grounds. They were told to go and catch them, boys, so that foreign fleets couldn't come in and catch them.

What happened was that they were knee deep in cod spawn, and I know, because my uncles were there. They were knee deep in spawn, and they were shoveling them off the decks of the boat. They were undersized fish, shovelled off, dead, and floated out, because the market dictates, not conservation. The market dictates for fish and for cod.

Is what I just told you sustainable development of a resource? No, it's definitely not. That is what happens, and that is what has happened in Newfoundland. Because of past government policy, that means they've left their small bays and inlets and have gone off to Alberta, to Fort McMurray. And they're not coming back. They're gone.

We managed the development of the fishery, oh yes, but not the sustainable development of the fishery.

That's the cod fishery.

I just want to mention Muskrat Falls. Maybe you've heard about Muskrat Falls, the Danny Williams thing.

Listen, we have a proposed development of Muskrat Falls. This power line that runs from Muskrat Falls to St. John's is going to cross 586 salmon rivers. They are not all big ones, but there are 586. Now, I don't know where they're going to cross. I've asked. They don't know where they're going to cross. Those small streams and rivers are spawning streams for salmon. Do they know where they're going to cross? No one seems to know.

Our provincial government is being guaranteed a federal government loan for Muskrat Falls, by Stephen Harper, so that we can have this thing go ahead.

I have not been privy to any environmental impact study on how the power corridor will impact on the surrounding environment. We know that together with salmon spawning in those 586 rivers, along those rivers, where they come into where I live, they come into woodland caribou calving grounds.

I just want to read you a little quote from Chief Seattle. Chief Seattle says, “We do not inherit the world from our ancestors, but borrow it from our children”. We seem to see the world of the quick dollar and tend to leave our land in a malaise for the quick dollar.

Basically, what I'm trying to say is that when we go to Kentucky Fried Chicken or McDonald's, we don't make that justification that it's meat that was once a live animal. For some reason, we forget it.

When we go hunting seals, we don't kill whitecoats any more, by the way. We haven't done that for years. I wish someone would tell people we don't kill whitecoats. We've told them, but they still don't seem to believe us, for some reason.

● (1115)

The last thing I'm trying to say is that there's a new hydro development or some kind of a pipeline going through B.C. I have lots of degrees after my name. I wouldn't mind to tell people what's good for them in B.C., but I'm from Newfoundland. How can I tell someone from northern B.C. what he should do? I can't do it. I don't know it.

We must manage our renewable resources for our children and ensure that they have the same for their day. We must mitigate the damage to our environment so that we leave the least visible footprint for the future to see. It is the non-renewable resources that can give us wealth, but the renewable resources give us life. I think we should try to remember that as a benchmark for life. It's quite simple—nothing more, nothing less.

Thank you.

● (1120)

The Chair: Thank you, Mr. Samson.

Finally, we'll hear from Mr. Bondrup-Nielsen of the Science and Management of Protected Areas Association.

Dr. Soren Bondrup-Nielsen (Treasurer, Head, Department of Biology, Acadia University, Science and Management of Protected Areas Association): Hello, and thanks for inviting me.

I have to start out by admitting that when I was first invited I was very reluctant, and in fact I thought I would not go. Then I spoke to Martin Willison, who was here several days ago. He and I are on CPAWS together, the Canadian Parks and Wilderness Society, and he convinced me to come.

My background is that I'm an academic. I am a biologist, a population ecologist. I teach conservation biology at Acadia University and have done that for 23 years. I do research in conservation, so I consider my background to be in this particular area.

I did not write any speaking notes. If you would like some, I could certainly do them later; however, I'm also the head of the biology department and so I have been a little busy, unfortunately.

I would like to start out by saying that when I start my courses in conservation biology I start with some stats. I was born in 1951. In 1951 there were approximately 2.5 billion people in the world. By 1978 there were 5 billion people in the world, and recently we passed 7 billion people. If I live to be 85 or something like that, under the present projections there will be 10 billion people in the world.

We live in an unprecedented time of human population increase. No other generations will ever see this kind of increase in the human population within the lifetime of a single individual: two doublings, 2.55 billion to 10 billion people. We are exerting a phenomenal pressure on this globe. I think we really need to look at the assumptions we make in terms of who we are and how we can interact with this world.

The other thing I talk about when I talk about conservation biology, which in the old days was called wildlife management, is that it has been recognized since Aldo Leopold's time that wildlife management is people management. Wildlife doesn't need to be managed; all species other than humans do not need to be managed. Humans need to be managed.

The other thing I talk to my students about when I start out is that the current paradigm of the linear predictability of nature started in the late 1600s, when we humans stepped outside of nature. We discovered that technology could separate us from nature and that in separating ourselves from nature we could use technology to counter the various negative feedbacks that nature throws at us when we do things that are unsustainable. We still believe in that paradigm.

That paradigm has brought us to where we are today: to the number of people we are, the riches that some of us have—that few of us have. In fact, 20% of the world lives on a huge footprint, whereas the rest lives on a very small footprint.

I think it's time to understand where the physicists are today: it's quantum mechanics, it's unpredictability; it's not linearity, it's connections. That is how the world works. We need to move in that direction.

Our economic system, which evolved along with science, because science fundamentally is a means of generating technology that can make our use of resources go beyond what is sustainable to the point that we suddenly fall off when we reach the end point.... I think it's time to also realize that our economic system must be subservient to nature's economic system.

Those are just the introductions I want to make: the assumptions we live under.

● (1125)

What should conservation be? I think conservation is not something that we do because we have the economic means to put aside a few protected areas, or that we have the means to be concerned about some rare and endangered species.

Many people ask, “Why should we preserve rare and endangered species? They're rare and they can't have an important ecological impact if there are only a few of them, so if we lose them, what is the big issue?” Of course the big issue is that nature is dynamic. Nature is always changing; nature is adapting. These rare species that we have today may be the dominant species in the future, under a new set of conditions.

Being concerned about biodiversity is not setting aside in a few protected areas and then thinking, “Now we're fine, now we can move on and impact the areas where we gain our resources to the maximum extent we want to, because the protected areas will protect biodiversity”. Well, protected areas are a short-term measure to conserve biodiversity.

What we need, of course, is a conservation ethic that goes to all the activities that we do. This is what I mean when I say that we are a part of nature.

Indeed, I'd like to argue that when we get it right, protected areas will become obsolete, because we don't need them any more; we are taking care of all species everywhere, and therefore protected areas, in terms of protecting biodiversity, are not necessary. Indeed, many protected areas—of course I think of Canadian national parks—are phenomenal places to go and see how phenomenal nature is, but these parks will never conserve biodiversity. They will serve the important function of really making people understand what a phenomenal country Canada is.

The last thing I would like to say—or maybe the second-last thing—is that here in North America we have a funny attitude. We white people in North America came here as visitors a long time ago, and we often forget about the aboriginals and their viewpoint. In the rest of the world, in Europe, the white people are the aboriginals. In Europe and elsewhere, they view nature as people being a part of it. Human artifacts are a part of nature in Europe and elsewhere, whereas in North America we like to separate people from nature. We feel that nature should be devoid of people, so when we talk about wilderness in North America, it excludes people. I think that's a very wrong approach to take. We are part of nature. Now, we may be visitors here, which makes it even maybe more special in a sense. That's one thing.

Finally, I'd like to just talk about Robert Costanza, who is an ecological economist. He has these four scenarios, and I can only remember three of the points he has. But he has a *Mad Max* approach, which is that humans just do as we are doing right now, taking resources as fast as we can and just hoping for the best. Then there is the *Star Trek* scenario, where science will save us in the end, and we will always be able to find new resources, new sources of energy, and new cures for diseases, etc. Then there is his precautionary approach: that what we need to do is to go slowly and take a precautionary approach, not saying we can take this maximum number of fish and we'll be fine; we should take far less than that and see how that disturbs the system, and then maybe we can take a few more, but we always have to opt for the lower level, not the upper level, when we use resources.

Thank you.

● (1130)

The Chair: Thank you so much.

We will begin our questioning.

The questions that are within the scope of the study we're doing today are what should be the purpose of a national conservation plan, what should be the goals, what should be the guiding principles, what conservation priorities should be included in a national conservation plan, what should be the implementation priorities, and what would the consultation process be. That's the scope of the study. We will be reporting to the government as a committee on the creation of a national conservation plan. If you go beyond that scope with your comments, it's permitted, but it won't really provide valuable input that we need in creating this report to Parliament. Keep that in mind, please, both members of the committee and witnesses.

I'd like to introduce you to the panel. We have 12 members of the Standing Committee on Environment and Sustainable Development, and there are six of us before you today. Mr. Woodworth and Mr. Lunney are with the government, as am I. Then we have Monsieur Choquette and Madame Liu with the NDP, the official opposition, and Mr. Eyking with the Liberal Party.

We will begin questioning. The first round is seven minutes, and we will begin with Mr. Woodworth.

You have seven minutes.

Mr. Stephen Woodworth: Thank you very much.

Thank you to the witnesses, particularly those who had to travel to get here today. We appreciate your time and your effort. We want to try to absorb as much as we can.

In that regard, Mr. Coon, I was happy that you highlighted the documents you have with you. It's probably my omission that I don't recall receiving the report card items or the reports that you mentioned from the ecosystems and biodiversity group. If I may, I'd like to ask the clerk if we got that material from Mr. Coon. Can you give us the titles again, Mr. Coon?

The Chair: One moment, please.

I am advised that we have one document but not what Mr. Coon was referring to.

Mr. Stephen Woodworth: Okay.

Mr. David Coon: I can clarify, if that's acceptable, Mr. Chair.

Mr. Stephen Woodworth: We have one document.

Mr. David Coon: In this document, "Canadian Biodiversity: Ecosystems Status and Trends 2010", the committee was holding a hearing on invasive species. I was going to appear at the hearing, but it got cancelled. Anyway, I sent this in English and French to the clerk. It would probably have been in a box for that set of hearings, so maybe what I sent could be mined out and distributed.

I'm sorry to create extra work, but I don't have any more of these, and I don't think Environment Canada has any either.

Mr. Stephen Woodworth: Certainly the title suggests that it would be relevant to what we're doing here today. It attracted my interest, and I appreciate your bringing it to our attention. I hope the clerk can work with you. At the very least, I'd like to scan it over and see what I can pick up from it.

Mr. Burgess, could you tell me again what your position is?

Mr. Steve Burgess: I'm acting director general of ecosystems program policy at DFO in Ottawa.

● (1135)

Mr. Stephen Woodworth: Ecosystems program policy. May I inquire—if you don't mind my being a little detailed, but I would like to understand the department a bit more—how many personnel do you have under your direction in ecosystems program policy?

Mr. Steve Burgess: I can't give you a precise number, but it would be in the order of 35 people.

Mr. Stephen Woodworth: When did you join that particular branch?

Mr. Steve Burgess: It was November 2011.

Mr. Stephen Woodworth: So not very long. I was hoping you might be able to give us some history of the branch.

Is 35 people high, low, or average over the last five or ten years? Do you have any notion of that?

Mr. Steve Burgess: The department has undergone a number of reorganizations in the last two or three years, so the configuration of the group has changed. So it might be a bit misleading to give specific numbers, but I can tell you that the programs under my responsibility have to do with species at risk, oceans management, and fish habitat management. The number of individuals in those groups is roughly the same as it would have been say three years ago.

Mr. Stephen Woodworth: Do you have any responsibility for delivery of programs regarding conservation and protection of Atlantic salmon?

Mr. Steve Burgess: No, I don't.

Mr. Stephen Woodworth: Okay.

Earlier we heard that DFO devotes about $12 million per annum to that particular issue. Do you know anything at all about that?

Mr. Steve Burgess: No, I'm sorry, that's outside my area.

Mr. Stephen Woodworth: Okay.

Your responsibility then is Canada-wide, not simply one coast or the other or the other.

Mr. Steve Burgess: My responsibility is to develop regulatory and policy and operational tools to facilitate delivery of the programs on the ground.

Mr. Stephen Woodworth: Do you, in the course of that, conduct any study or survey as to the number of people in DFO who might be called technical support people?

Mr. Steve Burgess: We haven't, to my knowledge, done a specific study of that nature. Certainly the department has information regarding the number of biologists, scientists, and so forth who are distributed across the country.

Mr. Stephen Woodworth: You mentioned reorganization. Can you tell me, your particular department, ecosystems program and policy, how long has that been in existence?

Mr. Steve Burgess: It's been in existence for about two years.

Mr. Stephen Woodworth: Two years. What was the genesis of it, or the purpose of introducing that particular department two years ago?

Mr. Steve Burgess: I'm speaking based on information that I have been told; I wasn't there for it. Essentially the department was looking to consolidate its operational and policy functions to create some synergies, if you will. Previously, for example, there were small policy functions distributed in various locations in the operational sections of the department. I think it was felt that by consolidating that operational and policy function into one group it would allow some synergies and some efficiencies.

Mr. Stephen Woodworth: Can you tell me your assessment of how that's worked out? What accomplishments do you see as having occurred in the last two years?

Mr. Steve Burgess: I can only speak for the last six months, unfortunately, but what I see is that we work very closely with colleagues who are responsible for policy related to fisheries management, to aboriginal affairs, aquaculture management, and so forth.

I think it allows us to better understand the issues and priorities of those other programs, rather than to be siloed into strictly a habitat function or an oceans function or a species-at-risk function.

● (1140)

Mr. Stephen Woodworth: Thank you very much.

The Chair: Monsieur Choquette.

[*Translation*]

Mr. François Choquette: Thank you very much, Mr. Chair.

Thank you to the witnesses.

My first question is for Mr. Coon. I have a lot of questions, but I am going to be quick. Earlier, I asked Mr. Hutchings about objectives.

[*English*]

The Chair: Monsieur Choquette, we're having technical difficulties. Could you try starting again?

[*Translation*]

Mr. François Choquette: Thank you, Mr. Chair.

My question is for Mr. Coon, about targets. I spoke with Mr. Hutchings earlier. I asked him what the targets for the national conservation plan should be. Should they be the Aichi targets? We signed the Aichi agreements, which are pretty ambitious. He said it was hard to say whether the targets could be met or not.

Considering that we signed these agreements, we should have ambitious targets. Do you agree that we should use the Aichi agreement targets as our model?

Mr. David Coon: Thank you, Mr. Choquette. That is a long question. It is better for me to answer in English.

[*English*]

If I understand your question, I raised the Aichi targets because I think they provide some guidance for the priorities that should be in a national conservation plan. Already work has been done on them by the federal and provincial governments to adapt them to the reality across Canada for each province. Unfortunately, we haven't had a discussion at a regional level about these at this point, and there doesn't seem to be one anticipated. In our region here, of course, we have five provinces. We have the maritime provinces, Newfoundland, and of course Quebec. We share common ecosystems, particularly with Gaspésie and Baie-des-Chaleurs between New Brunswick and Quebec and Îles-de-la-Madeleine with the Gulf of St. Lawrence. I think those kinds of discussions need to happen.

[*Translation*]

Mr. François Choquette: Thank you.

In connection with your idea of having stiffer legislation, you mentioned the importance of some countries that have already made efforts, such as Australia and Norway. Their environmental protection laws are stricter than the ones we have here.

Give me some examples of existing Canadian laws that should be strengthened. Or should we come up with an entirely new act that would provide for protection, that would make a national conservation plan possible?

Mr. David Coon: We have a new act, of course.

[*English*]

Existing legislation doesn't provide us with a comprehensive approach to protecting and conserving ecosystems and providing for sustainable use. That's why a number of times you have heard the examples of Australia and Norway proposed: they're the only countries we know of that have omnibus legislation to provide an overarching framework, a kind of legal umbrella within which government decision making gets done with respect to development decisions and so on.

So there is a gap. When talking to MPs about this issue over the years, the response commonly is, what should we do? I think these two laws are worth studying as examples of what we could do. You are lawmakers; you make laws. Here are some good laws to look at and to consider.

The other approach that has been taken in some countries is to enshrine rights for nature into the constitution, as Bolivia and Ecuador in particular have done. They brought forward ideas to the United Nations in 2010 along these lines. The debate is ongoing. That's another more controversial but interesting approach.

● (1145)

[*Translation*]

Mr. François Choquette: Thank you very much.

As we know, our legislation has been weakened somewhat in recent months with regard to environmental assessment, notably the law respecting fish habitat. Many witnesses have said that we have to adopt an overall, holistic approach, and clearly identify cumulative effects.

Do you think that a holistic approach and a study of cumulative effects should be part of future legislative provisions?

[*English*]

Mr. David Coon: If I understand you correctly, that's the point of this approach to legislation: that it provides a holistic approach enshrined in law. It's not prescriptive, but it provides a legal framework within which government can do its business, to reflect the fact that in reality we are embedded in nature and our economy is embedded in nature. But we don't have the legal framework to recognize that and help guide government decision-making to ensure that this fact is respected.

[*Translation*]

Mr. François Choquette: Thank you.

My question is for Mr. Burgess.

Recently, at Fisheries and Oceans Canada, 55 jobs were cut in ecotoxicology. I think that is an area that is very important to keep if we are going to have a national conservation plan worthy of its name.

Do you know which positions were cut in ecotoxicology? Here, in Nova Scotia, there are job losses at Fisheries and Oceans Canada. But people have told us they needed those services. Yesterday, at Sackville River, people told us that support from scientists at Fisheries and Oceans Canada was quite crucial to them. Are you very familiar with that program? Can you tell us a bit about it?

[*English*]

The Chair: Unfortunately, time has expired, but there may be other opportunities to answer the question.

Mr. Lunney, you have seven minutes.

Don't touch the mikes; let the technician do it. Nobody should be touching the mikes.

Mr. James Lunney: Thanks to all of the witnesses for your contributions to an important discussion.

You've all made some intriguing remarks, but let me start with our friends from Newfoundland, who had to travel the farthest to get here.

Mr. Samson, thank you for appearing today.

You made some remarks about the cod fishery. We had a challenge—this is a little off topic, but I'll make a mention of it—with the nose and tail of the Grand Banks being beyond our 200-mile limit. We made some efforts with NAFO to bring that under control, and we're hoping that's making a difference.

You made a remark about the whitecoats and the sealing industry. You mentioned British Columbia. As an Atlantic Canadian, I know you perhaps wouldn't be wanting to tell B.C. how to manage things.

As a member from the west coast of Vancouver Island, I had the opportunity of being in Europe. There were parliamentarians from the EU and northern Arctic nations there. I brought up the sealing issue, in case they wanted to discuss it—we're taking that to the WTO and so on—and it sparked quite an interesting discussion among the people at this conference.

I made the point that this is sustainable—supported by the World Wildlife Federation, among others—and that this is about sustaining a population in remote and rural communities. It's not a conservation issue; it's a complicated issue, with a lot of emotion attached to it. Slaughtering anything, as you've mentioned, is not a pretty thing.

Let me take that as an example, and bring in your neighbour Dr. Soren Bondrup-Nielsen.

You made the comment that if we get it right, managing wildlife would not be an issue. I want to just ask the question about wolves endangering public safety. That's an issue in some parts of Canada. It's certainly becoming an issue even on Vancouver Island. Boy, those suckers are big. I ran into one recently.

If you have wolves endangering public safety, or in the case that Mr. Samson is raising here—and maybe you'd both like to comment on that—is there not a place where predation on a recovering species is an issue, that actually managing wildlife in terms of these issues has to be accommodated somehow in a national conservation plan?

● (1150)

Dr. Soren Bondrup-Nielsen: Absolutely, and I hope I didn't suggest that was not the case within my general comments.

In fact your question is very pertinent. Right now I'm involved in a study of coyotes in Cape Breton Highlands National Park, where of course, very unfortunately, there was a death a couple of years ago because of a coyote. The park has very cleverly, I think, tried to be very proactive in getting a study under way. I have a student up there right now looking at this issue, where they're taking a very holistic approach. But a large component of the approach is looking at human behaviour. Indeed, in all of North America, in recorded history, there have only been two cases where coyotes have killed people: one in California, and one, unfortunately, here in Nova Scotia.

Absolutely, this is a very serious issue. But again, I come back to how wildlife management is people management. Indeed, national parks are unique in the sense that people arrive there as visitors wanting to see nature, wanting to get close to wildlife. Unfortunately, many people, as it turns out, through interviews that a researcher from Newfoundland has been doing, feed the coyotes. If you feed any animal.... Red squirrels, if you feed them, will attack you if you don't feed them. So there's a huge component of needing to educate the public in order to understand these issues.

They are predators, and humans can certainly be food to, as you mentioned, wolves and cougars in B.C. Yes, there is that aspect to it, but this is a small component of wildlife management, of conservation, that needs to be addressed.

Mr. James Lunney: No, I hear that, but also, if we're talking about predation, there are wolves with elk, and in some cases endangered species of elk where elk populations are threatened by wolf populations.

Or there's the case of the cod recovery, when you have seals at the numbers they have, and as Mr. Samson points out, where they eat nearly a tonne of fish a year.... It's eight pounds a day, and I think that works out to about a tonne a year per seal. If they took the thing up on the shore and ate the whole fish with their neighbours, it wouldn't be quite such a problem.

Do you not feel there's a place where we have to actually help one species that's threatened by predation from another?

Dr. Soren Bondrup-Nielsen: Well, you have to realize that the one species that is threatened is often threatened because of other reasons. When you have that, on top of having predators that are maybe going hungry, then yes, they can drive it down. In academics, we talk about an extinction vortex. Once a species is driven down to very low numbers, then all of these factors begin to push them into this extinction vortex. When we arrive at that stage, absolutely, we have to become very proactive.

However, we must never assume that in nature we have very linear interactions. If we look at the food web in the Atlantic ocean, it is phenomenally complex. Yet there are cod and seals, and seals do eat cod and other fish. However, it's not necessarily so simple that we can say that by reducing seals we will increase cod, because of this highly complex, interactive, connected system we work with. Taking this holistic approach and looking at the whole ecosystem I think is what is needed.

Sure, when human life is in danger, then that probably requires a special case. With the coyotes in Cape Breton, those coyotes need to learn that humans are not food—they provide food—and humans need to learn they should not provide food.

● (1155)

The Chair: Mr. Lunney, your time has expired.

Mr. Eyking.

Hon. Mark Eyking: Thank you, Mr. Chair.

Thank you, gentlemen, for coming.

On our tour yesterday, and hearing from some of our witnesses this morning, it was well noted that the cuts to science and technical support are going to hurt the people on the ground, whether they're harvesting or they're managing or they're even protecting our marine wildlife.

The big story out today is that the federal government is canning a Mr. Ken Lee, who was an oil spill expert for cleanups and prevention of oil spills.

It's been well noted now that the DFO cuts are going to be pretty brutal in Atlantic Canada.

I guess my question is what are the challenges going to be for conservation when you have so many cuts like that to staff, monitoring, and analyzing? How are those going to diminish the work for conservationists or people on the ground who are trying to get the job done?

That's my first question, and it's open to all of you. If you can be quick with the answers, I'll have another question.

Maybe you can start, Mr. Burgess, by saying how deep the cuts are going to be to Atlantic Canada. You would know that.

Mr. Steve Burgess: I'm sorry, but I don't have the specific numbers with respect to the reductions that will take place in Atlantic Canada. That's outside my area.

The Chair: Thank you.

Mr. Samson, did you want to answer the question?

Mr. Ward Samson: Mark, the question seemed to be leaning towards how we manage for people. We forget that we have to manage for species.

People are people. The gentleman here said that the population increases exponentially, and we still haven't been able to manage for the species. We're doing all kinds of different things in our process. We have all kinds of different organizations saying this works, that works, and pointing out that this works in concrete unison with something else.

We have to manage for species, and they don't.... We're talking about parks. You have a border—

Hon. Mark Eyking: You can't manage species unless you have the technical data and science to back it all up.

Mr. Ward Samson: Yes, I agree with you, but you can't manage the species either. We're basically in a finite system. You have to manage for the whole species. You can't manage polar bears if you're just going to manage for bears. You have to manage seals, ring seals—not harp seals, because you don't eat harp seals.

What I'm trying to say is that we just manage for finite little indicators and we have political interference that tells us that we manage for this, we manage for that, we manage for this. We've got special interest groups that dictate what we do, and we have all kinds of special interest groups in our system that say we need to manage for this.

I can give you one example, and maybe I'm picking on somebody, I don't know. Maybe I'm opening a can of worms, but we have hook and release of salmon, for instance. We manage for that. We can't police it. It's impossible to police. You can't police that. But we have hook and release of salmon, and salmon don't eat going upstream. They don't replenish their energy; once it's gone, it's gone. Yet we have to say we've got hook and release, saying that's the means, that's how we conserve salmon, by catching them and releasing them.

Now, if I catch something, I'm eating it. That's the people I represent. If we kill something, we eat it. I'm not killing anything that I'm not going to eat. It's simple.

● (1200)

Hon. Mark Eyking: Do you have any comments on this, on my first question?

Mr. David Coon: It's quite worrisome, the decline of support for science in the federal government. The examples are multiplying. One of them relates to this. I guess in the current budget, funds for future work—not the work that's in the hopper now, as there are a couple more years worth of work on this, but funds for future work, about how in the future we will be able to do this kind of evaluation and synthesis of the health of our ecosystems—were not provided, though they were requested.

On so many levels, it's an issue, yes. There needs to be some good sense brought to a science strategy across departments in Canada, and I guess at this point that's what we need. We need some good sense applied.

The Chair: You have a minute and a half remaining.

Hon. Mark Eyking: Okay, I just need half a minute at the end for Mr. Samson.

Go ahead, sir.

Dr. Soren Bondrup-Nielsen: I'd like to address that question, because I mentioned earlier my study on coyotes in Cape Breton Highlands National Park.

The scientists up there I was working with were the ones who have lost their jobs because of this recent cut within Parks Canada. I'm not so sure who I'm reporting through right now within Cape Breton Highlands National Park, but I do find it very unfortunate that the cuts that occurred within Parks Canada, as a result of the cuts to Parks Canada in general, meant that the scientists and the rare species scientists were the ones who are not there any more.

Now, the study is continuing, but I don't know ultimately where it's going.

Hon. Mark Eyking: My last question is to you, Mr. Samson.

The boys I represent at home, the older fishermen, say they used to go out in the dories and jig cod. They say the demise was due to the big trawlers, the draggers, the freezer trawlers. With the sonar, they just knew where the fish were going, and they went after them and cleaned them out.

I guess my question to you is should we ban those trawlers, the draggers, on the Grand Banks and go back to hook and line?

The Chair: Unfortunately, the time has expired, so maybe you can answer yes or no.

Mr. Ward Samson: Well, it's not a yes or no answer.

Trawlers tear up the ground. Yes, they do. Bottom trawlers tear the ground to pieces. Whatever is in their trawl is caught, and basically the market dictates what you take out. What you throw away or discard is what the market says too.

With a trawler, you take everything. You can say that there's some technology that yields.... For shrimp, there's a thing. With some technology, you can get away with some things. But for most stuff, what's in there you take or you discard.

The Chair: Thank you so much. Time has expired.

We now have Madame Liu. You have five minutes.

Ms. Laurin Liu: Thanks to our witnesses for coming in today.

I just want to pick up on the line of questioning of my colleague Mr. Choquette.

This question is directed to Mr. Burgess, from DFO, concerning cuts. We've heard from conservation organizations that they don't have the necessary expertise to carry out their activities because of the cuts to DFO, because of the fact they no longer have scientists or technicians on the ground telling them what to do and telling them how to do it. You mentioned that expertise is not only found in DFO, which is true, but it seems as though DFO does offer essential expertise and support to these folks who are on the ground. Could you talk about the other effects, or have you seen this phenomenon happening on the ground as well?

● (1205)

Mr. Steve Burgess: When it comes to the use of departmental resources, we very much have a focus on our priorities. I think the first priority for the department is to ensure that it meets its legislative and regulatory obligations and that we have the science resources to support those obligations. We recognize, though, that there is a lot of expertise outside the department, both provincially and within conservation groups, and we draw on those resources. I think we can all work together to achieve our objectives.

There are amendments being proposed to the Fisheries Act, and part of that is about the department focusing its activities on its core mandate. At the same time, we recognize that working in partnership is key to achieving conservation objectives. Some of those amendments make it easer for the Minister of Fisheries and Oceans to enter into agreements, partnerships, and arrangements, including financial arrangements, with third parties in order to deliver elements of the program. I think the department is moving towards working more actively with partners who have a common interest in the management of fish and fish habitat.

Ms. Laurin Liu: Mr. Samson, the message I got from your presentation was that we should talk about people, that we should have a sort of people-centred strategy, managing people rather than managing species. That's a really interesting way of looking at things.

Would you say that sustainable development in particular should be a guiding principle of NCP?

Mr. Ward Samson: Yes, I would.

Ms. Laurin Liu: Mr. Bondrup-Nielsen, you also spoke about the need to protect rare and endangered species, and as Mr. Burgess noted, there have been changes to the Fisheries Act. Do you think that in elaborating a national NCP we should be concentrating on habitat, or should we be concentrating on protecting species that we use for commercial or other purposes, in light of what you said about protecting our endangered species?

Dr. Soren Bondrup-Nielsen: We can't just protect one little component and not something else. It has to be habitat. If we protect a species, we do it by protecting the habitat and the impacts upon it. So absolutely, it's habitat, but also the species themselves.

What I would like to get across is that we can't just look at very specific parts of this whole system. It's the whole system we need to look at, not just components and think that everything else will be fine.

Ms. Laurin Liu: I'd like to fit one last question in.

Mr. Coon, among all the tools in the tool kit that we have for conservation we find the ecological gifts program from Environment Canada. It's one tool that we have, but what can be done to improve this program, if it can be improved?

Mr. David Coon: I wouldn't put the emphasis there, really, because when we think of conservation in a policy sense, we are stuck with two things: creating protected lands and trying to protect endangered species to keep them from going extinct. We need new thinking around public policy about how to maintain the health and integrity of ecosystems and restore those that we've already damaged. That's where I think a regulatory framework will help. I think that's where we need to engage the provinces.

I will remind you that we beat acid rain. I referred to that in my presentation. We beat it with federal government leadership across two different parties holding government, and the participation of six provinces in this country and civil society. We beat it. I don't see why we can't tackle this issue, which is large, in a similar way. We have to have the political will. We have to have some vision and some wisdom.

● (1210)

The Chair: Thank you so much. Your time has expired.

Ms. Laurin Liu: Can I make a point of order?

The Chair: You can.

Ms. Laurin Liu: Since the committee has encountered a few technical problems today that have slowed down our line of questioning in this round, I was wondering if the committee would be amenable to extending the meeting by five minutes to fit in another questioner.

The Chair: That's not really a point of order. We are on time, and things are functioning fine.

Our next opportunity for a question is Mr. Woodworth. Go ahead.

Mr. Stephen Woodworth: Thank you, Mr. Chair.

Gentlemen, I know that you're all aware that this is not a matter that can be dealt with simplistically. We have a lot of different interrelated factors to consider. In the last round I mentioned about 20 different things the environment department does. Somebody said that it's a tall order, and I said yes, that's the order we've been asked to fill.

I've been taking notes of things that relate just to conservation. I'm going to mention the list I have to you and ask you if I've left anything off, first of all. Second, what would your top three priorities be, considering that maybe we can't do everything, at least all at once.

We have, in the area of conservation, enforcement against human depredation and establishment of protected areas. We have basic research and applied research. We have supplying support staff in conservation efforts, assessment of projects, and public consultations in relation to conservation. We have educational efforts, protection of specific species, and efforts at climate change adaptation. We heard about ecotoxicology this morning. We have funding of conservation groups, and we have incentives or stewardship programs. Those are on the checklist I have so far.

Mr. Coon, perhaps I'll start with you. What have I missed, and what would you consider to be the top three priorities on that list?

Mr. David Coon: As I mentioned in my remarks, I would take an entirely different approach. Just as we need an ecosystem approach to development and approvals in the country, we need an ecosystem approach to how we organize government on this question. If we're going to have a national conservation plan, then we need to rejig the institutional framework we have within government. So I would see major reforms in the way Environment Canada is organized, and I would see some kind of new institutional arrangement that would enable work across departments to occur effectively. That would be something perhaps attached to the centre of government.

I would take a fresh look at this and say that if our goal is really—if this is what the committee decided—to protect the integrity and resilience of ecosystems across this country and restore those that have been damaged, then we need to have the institutional capacity to do that. We haven't got it organized in that way within the federal government or provincial governments right now.

Mr. Stephen Woodworth: So that's your top priority then, I assume. Thank you.

Mr. Burgess, do you have any comment on what I said?

Mr. Steve Burgess: I do, thank you. In fact I would refer to three areas, perhaps not all of them on your list.

First of all, I think for a conservation plan to be successful it has to be multidisciplinary. It has to take into account not just science, whether it be basic science or applied science, but I think it has to include socio-economic factors. I think it has to include ecological knowledge, aboriginal traditional knowledge, and so forth. I think it has to be broadly informed.

I also think we need to apply a risk-based approach. It's very difficult, given the realities of resources and expertise and so forth, to do it all. I think we have to focus on priorities, and we have to decide what those priorities are. We have to be clear and transparent about that process.

Finally, we have to take a holisitic approach. I think others have referred to this previously, an ecosystem approach that describes clear goals and objectives. This is particularly important to allow us to assess how well we're doing down the road and to ensure Canadians understand how progress is occurring and whether or not we're actually achieving our conservation objectives.

● (1215)

Mr. Stephen Woodworth: Thank you.

Shall I skip you, Mr. King? You're sort of with Mr. Burgess.

Mr. Samson.

Mr. Ward Samson: In your question you asked me to give you three top priorities?

Mr. Stephen Woodworth: First of all, have I missed anything? Second, what are the top things we should focus on? I mentioned three as a—

Mr. Ward Samson: At the same time, when we're dealing with—

The Chair: Order. Time has expired, so we're going to need to keep your answer short, please.

Mr. Ward Samson: Okay.

Basically, what I'm trying to say is we can't compartmentalize things, put them in different compartments. We have to manage for the whole system, and it isn't going to be easy. If you start listing top priorities, that's what gets managed, and then something else gets left out. You have to encompass the whole gamut. I think we have to be in concert with the United States. We have to look at the whole North American system. You can't manage Cape Breton Island for coyotes. You can't manage northern territories for caribou or polar bears, etc. You have to manage a whole system. If you put a ban in and say I'm not going on the hunt, you compartmentalize it. You put it into a little compartment and say whoops, there's a nice little park, but you're not managing for wildlife; you're just managing people.

The Chair: Thank you so much.

I want to thank each of the witnesses for taking their valuable time coming here and being with us today. We really appreciate your sharing your expertise with us.

Colleagues, we are going to suspend. We will reconvene at 1:30.

We're suspended.

● (1215)

(Pause)

● (1330)

The Chair: I call the meeting to order.

I want to welcome each of the witnesses to the 38th meeting of the Standing Committee of Environment and Sustainable Development as we continue our study on the development of a national conservation plan. This will be the last group of witnesses we'll hear from before the committee meets to create a report. It's really special to have each of you here as we conclude our study on this important topic.

We will begin with the Canadian Land Trust Alliance. Margo Sheppard, the floor is yours.

Ms. Margo Sheppard (Chair, Canadian Land Trust Alliance): Thank you very much, Mr. Chair.

Good afternoon. My name is Margo Sheppard and I'm the volunteer chair of the board of the Canadian Land Trust Alliance. I'm an environmental planner with experience in the public sector, and for the last 14 years I've been the executive director of a land trust in New Brunswick called the Nature Trust of New Brunswick.

I thank you very much for the opportunity to address the committee on something that is fundamental to the identity of our country, which is our natural heritage. The Canadian Land Trust Alliance, or CLTA, as I'll call it, is Canada's national land trust alliance and represents a membership of over 55 land trusts from coast to coast to coast.

For those of you who may not be aware, a land trust is a grassroots, non-profit, charitable organization whose principal objectives include the long-term protection and management of ecologically sensitive lands for nature and the public good. CLTA member land trusts are supported by a network of over 200,000 individual members and donors and over 20,000 volunteers. Collectively, our land trusts have protected over 6.3 million acres of land, which contribute to Canada's network of diverse natural protected landscapes.

CLTA member land trusts have done much over the years to gain the support of the citizens and landowners in Canada through the development and subsequent adoption of the Canadian Land Trust Alliance standards and practices. The land trusts of Canada have shown their commitment to high standards for technical and ethical operation, as well as continuous improvement. Land donors appreciate this commitment.

In the past century Canadian governments have created an impressive array of a system of national and provincial parks and wildlife refuges. Despite such advances, these public lands, which comprise less than 10% of Canada's land mass, are inadequate to safeguard our water, wildlife, and fragile ecosystems from human and industrial impacts, particularly in and around the settled and working landscapes of southern Canada and particularly in this era of climate-induced stressors.

We're faced with having to rely on more than public lands to meet our country's international commitments for conservation. This means that privately held property—conserved via the work of land trusts, but that ultimately is managed for the public good—takes on increased significance. People need natural areas and open spaces close to where they live. Canada loses 150,000 acres of wetlands, woodlands, and agricultural land every year to development, and as our population grows, predominantly in southern Canada in areas of high biological diversity, so does the need to conserve our watersheds and natural places to ensure our communities' resilience.

The pace of protection must also dramatically increase or many significant land and water resources will be lost or degraded by development and urban sprawl. Increasingly, many land-rich, cash-poor Canadians want to voluntarily donate their land to organizations for the purposes of conservation. This transfer of property gives the conservation community a unique opportunity to add to and possibly complete the necessary network of parks and wildlife areas in our lifetime. We're ready and willing to do this in partnership with government.

We applaud the federal government for the efforts to develop a forward-thinking national conservation plan and to become even more involved in protecting Canada's natural landscape. The CLTA would like to offer the committee the following three recommendations for consideration:

First, we would encourage the establishment of a cost-shared stewardship endowment fund that could be accessed by the conservation community to ensure protected lands are managed and maintained in perpetuity. This fund would operate as a public-private partnership that involves shared funding for the wise and long-term management of these conserved areas by their community stewards—i.e., land trusts and their partners.

Second, we recommend that the national conservation plan build on the work already done by community-based volunteer groups and enhance these efforts by supporting strategic conservation plans reflecting the needs of towns and rural areas where they operate.

● (1335)

The CLTA and its partners have recognized that by encouraging land trusts to be more strategic they will help them become better positioned to prioritize and direct resources towards conserving the most sensitive natural areas, to connect people with the land and the water that sustain them, and to advance an understanding of the relationship between land use and water quality and quantity.

To this end, we have worked with provincial partners on a Canada-wide watershed planning initiative directed at local and regional land trusts, to address four key goals: conserving more and the best land in the most effective manner; connecting people with the land and conserved land to other conserved land, such as wildlife nodes and corridors; sustaining the conservation movement by making it more financially stable, inclusive, and networked; and collaborating with landowners, local communities, and other allies to align land objectives with individual and community needs.

Should the committee choose to adopt a national conservation plan with a private land conservation component, the CLTA would be an excellent intermediary, for example, in a program to re-grant land to grassroots land trusts in order to achieve government and community goals.

Third, we encourage the government to recognize that in addition to conserving and protecting natural areas in the working landscape, the conservation community creates employment opportunities primarily in rural and more remote areas of Canada.

A 2010 report commissioned by Environment Canada compares the jobs impact of stimulus funding for grey infrastructure—for example, pipes and arenas and roads—with the impact of ecological restoration and stewardship, or what we call in the land trust community “green infrastructure”, which are key functions of land trusts. The study found that for every million dollars spent on grey infrastructure, three jobs were created. By contrast, for every million dollars of spending on ecological restoration and stewardship, 22 jobs were created.

In summary, then, the need for conservation is growing as the concern of Canadians deepens over our nation's finite water resources and land base. A national conservation plan should aim to protect private lands through strategic partnerships, planning, and the acquisition of ecologically sensitive property. A focus should be on lands that are critical for water quality protection—flood plains, wetlands, and headwater areas—in order to build resilience in our ecosystems. The national conservation plan should strengthen this capacity, reconnect people to the land, and ultimately help build sustainable communities.

CLTA's member land trusts have done much over the last few years to gain the support of the citizens and landowners of Canada. The collective achievements are all the more remarkable when one considers that every acre conserved has been through voluntary actions of private citizens.

The CLTA appreciates the opportunity to put forward these recommendations for consideration. If implemented, they will enable land trusts and owners of Canada's significant natural areas to increase the amount of ecologically sensitive land brought under long-term protection.

We are committed to working with the Government of Canada and all parliamentarians to ensure the swift and successful implementation of the measures proposed.

Thank you very much.

The Chair: Thank you, Ms. Sheppard.

Next we will hear from the Congress of Aboriginal Peoples. We have with us today National Chief Lavallée and National Vice-Chief Dorey.

Thank you for welcoming us into your traditional territory.

We look forward to your testimony. You have ten minutes. Thank you.

● (1340)

Chief Betty Ann Lavallée (National Chief, Congress of Aboriginal Peoples): Good afternoon, Chair and members of the House of Commons Standing Committee on Environment and Sustainable Development.

It's an honour to be here on the territory of the Mi'kmaq peoples, my people, to speak to you concerning the national conservation plan.

I'm a Mi'kmaq woman. I am also an Indian Act registered Indian with status to an Indian Act band here in Nova Scotia. I am the National Chief of the Congress of Aboriginal Peoples, also called CAP, which is one of Canada's five national aboriginal organizations.

For 41 years we have represented the rights and interests of off-reserve non-status and status Indians, and Métis aboriginal peoples living in rural, urban, remote, and isolated areas throughout Canada.

The congress applauds this bold initiative to produce a national conservation plan and wishes to see it become a national priority. We are very supportive of this important plan and wish to be engaged every step of the way.

Preserving our biodiversity is not going to be a simple task. Canada's Aichi commitment to protect 17% of our lands and 10% of our water by 2020 demonstrates a very big challenge.

In my remarks to you today I propose to respond with some early high-level thoughts directed to the six questions that the chair has posed.

I will start with the purpose of the national conservation plan, which I will call the NCP. The congress supports the idea of developing an NCP that builds on existing successes and that reflects long-term thinking. We are supportive of developing and employing innovative approaches to conservation for terrestrial, marine, and freshwater components. Promoting conservation and awareness of natural species and the species that underpin the environment, human health, and the economy reflect an aboriginal approach to the environment.

Aboriginal peoples have successfully lived with Mother Earth since the beginning of time. Mother Earth and all the creatures on her represent our history, our culture, and our identity as peoples. A sacred trust relationship exists especially between aboriginal peoples and Mother Earth.

Aboriginal peoples are peoples of the land, as are you. Many of us still live off the land and its resources and are the stewards of biological and cultural diversity. Our rights, cultures, livelihoods, traditional knowledge, and identities are based on a deep relationship with land, waters, and resources.

The great promise of the industrial age was progress without limit and without end. The aboriginal sacred trust relationship with the environment stands in sharp contrast to this philosophy. We believe that the welfare of future generations should not be jeopardized by the actions of today's generation. We believe it's appropriate to think seven generations ahead and consider whether the decisions we are going to make today would benefit our children seven generations into the future.

Many wise people have commented on the human inability to be mindful of the long-range consequences of our actions. Some people believe that change is now running out of control and fear the risks involved with new industrial technologies. I don't. I think we can all agree that when it comes to the NCP, it will be up to this generation to shape it, share it, and then look after it.

From our positive point of view, the NCP can be a landmark in the conservation of Canada's biodiversity and sustainable use of biological resources.

What should the goals of the NCP be? Broadly speaking, the congress views the NCP as requiring bold and action-orientated goals to protect, connect, restore, and engage. The congress would like to recommend the following: protect and conserve Canada's biodiversity and ecosystems; connect a network of large marine, freshwater, and terrestrial protected areas; restore degraded ecosystems and recover habitat for endangered species; and engage and educate Canadians concerning the benefits from biodiversity and ecosystem services.

● (1345)

The guiding principles should set out that aboriginal peoples wish to work cooperatively with the Government of Canada, as well as with the provinces and territories, to develop and implement the NCP. CAP and our affiliate organizations wish to work cooperatively with federal, provincial, and territorial jurisdictions to achieve the NCP goals. As a matter of fact, the Congress of Aboriginal Peoples has worked with the Department of the Environment over the last ten years and with the Department of Fisheries and Oceans to form management boards, to form SARA, and on the NACOSAR boards.

The congress would like to recommend two guiding principles. The first would set out that aboriginal peoples would play an essential role in carrying out the goals and objectives of the plan. The second would reference the traditional knowledge of aboriginal peoples and that it must be considered in the development and implementation of the NCP.

What conservation priorities should be included in an NCP? For aboriginal peoples, climate change brings a real threat to our cultural survival and undermines our aboriginal rights and interests. Climate change and the associated effects of ecosystem changes have profound implications for the development and implementation of the NCP. One of the cornerstones of the NCP should be consideration of species at risk. The human race has exterminated species at an alarming rate, and in Canada the number of endangered species grows each day. Currently there are 640 species that are at risk, and the list will keep on growing.

Loss of diversity is considered one of the world's most serious environmental problems. The NCP needs to address this as a conservation priority. A second conservation priority requires the inclusion of invasive alien species, which have significant environmental, economic, societal, and trade impacts on Canada. Invasive species pose a threat to many of the medical plants used by aboriginal peoples. The protection of Canada's aquatic and terrestrial ecosystems from the risk of invasive alien species must be addressed through the NCP.

There are significant challenges ahead in the implementation of the NCP, and most of these will evolve during the years ahead. We would see the priorities include halting the loss of biodiversity and building ecosystems' resilience; educating Canadians concerning biodiversity; undertaking effective monitoring and reporting, including progress on the NCP; mitigating climate change; and establishing and managing a comprehensive network of protected areas, both terrestrial and aquatic.

The congress is seeking five specific implementation priorities for aboriginal peoples: that full and effective participation of all aboriginal peoples take place in conception, design, and implementation of the NCP; that the NCP ensure aboriginal traditional knowledge is an integral part of the conservation actions; that the federal, provincial, and territorial governments support the participation of aboriginal peoples in the implementation of the NCP; that the NCP be in full conformity with and promote the implementation of the UN Declaration on the Rights of Indigenous Peoples and the Convention on Biological Diversity and all other treaty and land claims agreements that are currently in place; and that the federal government support aboriginal participation in the monitoring of habitat change and conservation impacts.

What consultation process should the minister consider when developing the NCP? What I'm about to say is nothing new. He's heard this over and over. Every decision taken by the crown affecting or impacting aboriginal peoples or our interests is a matter that is consistent with the duty to consult. The crown's obligation to fulfill this duty is grounded in the honour of the crown and the protection of aboriginal rights and interests in the Constitution. The crown's duty to consult and to accommodate our interests is firmly rooted in national and international law. It's important in the implementation of the NCP that CAP and Environment Canada develop innovative approaches that take into account the unique circumstances of status and non-status Indians living off reserve and the Métis.

● (1350)

Consultation will require ongoing dialogue, and accommodation will mean balancing aboriginal rights and interests with those of government and non-aboriginal interests. The constitutional duty to consult with aboriginal people is an obligation intended to promote negotiation and relationships rather than your judicial dispute resolution. We support Chief Justice McLachlin's view that "negotiation is a preferable way of reconciling state and Aboriginal interests". We believe that there is a middle ground in all of the discussions that are going on, that there do not have to be paralyzed, polar positions.

I would conclude with some parting thoughts as you undertake your work. What about the seventh generation? What are we going to create for them? What will they have? When I talk about the seventh generation, I'm not talking about only aboriginal children or the aboriginal seven generations. I'm talking about all our grandchildren and grandchildren yet unborn.

[*Witness speaks in Mi'kmaq*]

Thank you.

The Chair: Thank you, Chief Lavallée.

Now we will hear from Ecology Action Centre. Ms. Fuller, you have ten minutes.

Ms. Susanna Fuller (Coordinator, Marine Conservation, Ecology Action Centre): Thank you. Thank you for inviting me, and thank you to the rest of our panel members.

I know that a lot of you learned a lot about the Ecology Action Centre yesterday. I'm sorry I missed that field trip, but I'm glad you had a chance to get outside.

You already have my statement. I'm just going to add a couple of things that came to mind as I was thinking about this presentation today.

On a personal note, I spent the last five days with my three-year-old, and I was thinking a lot about the national conservation plan at the same time as I was being a single parent. There were some parallels between parenting a toddler and what I think a national conservation plan should entail. I'll go into more detail on these four points later.

First, a strong framework is necessary. Second, there should be consequences for not following the rules, especially when you're stuck in the Toronto airport for four hours. Third, you need to have some threat of consequences. That's important. Fourth, there need to be incentives that follow that framework, and then you need to talk about and relate them to the successes.

I think that's where the analogy stops. It was something I was thinking about while I was sitting last night in the airport for a long time.

The other point is that the Ecology Action Centre has often talked about “action” being our middle name. I thought it might be a good idea for the national conservation plan to adopt “action” somewhere. Maybe it should be the national conservation action plan. I know that particularly with the EAC, we think a lot about what we do and how that drives us to action and what that means.

I'm not going to get into as much detail as I have in my written statement, but I'll go over who the EAC is briefly, and then I'll go into the recommendations I have.

The EAC is Nova Scotia's oldest and largest community-based environmental organization. It was founded in 1971, as part of a class at Dalhousie University. Today we have a staff of 35 people. We also have 600 volunteers and 800 members. Our mandate, in some ways, is unique for an environmental organization. It includes working towards a sustainable environment and a sustainable livelihood, so we think about the economy and the environment in almost everything we do.

We cover a very wide range of issues. We do our work in Nova Scotia, but we also do work outside of Nova Scotia. We look at wilderness protection, sustainable forestry, local food, urban gardens, food security, renewable energy, sustainable and active transportation, coastal protection, water conservation, climate change, sustainable fisheries and seafood, and policy at the provincial, national, and international levels. All of those are pieces of what we see as important in working towards a sustainable environment.

The Chair: Ms. Fuller, we need you to speak a little slower for our interpreters.

Ms. Susanna Fuller: Absolutely.

As an example of a long-lasting change we are quite proud of, in 1971, the year we were founded, we started the first recycling program in Nova Scotia. Now Nova Scotia gets visits from international delegates who look at our recycling and composting program. Today we have a reduction of at least 50% in landfill waste. So we think things like that can tip people's behaviour and fundamentally change how people do things.

I work as the EAC marine conservation coordinator, and because of the federal jurisdiction over the marine environment through the Fisheries Act and the Oceans Act most of my experience is with national laws and policy, and more recently with international laws and commitments related to the UN fish stocks agreement and the Convention on Biological Diversity.

The work of the marine staff the EAC spans the very local, from our co-creation of “Off the Hook”, community-supported fishery, to the international, through our work at the Northwest Atlantic Fisheries Organization. We co-hosted the International Symposium on Deep-Sea Corals, which is now a biannual international conference. The reason I mention this is that we found that research and real information was really key to getting the government to take action around protection. We're now proud that Nova Scotia is home to the first deep-water coral conservation areas in Canada.

Access to a healthy environment, clean air, safe and locally produced foods, affordable and sustainable energy and transportation, intact wilderness areas, and species diversity are all parts of the good quality of life Canadians expect. Increasingly, however, these are at risk.

With regard to a national conservation action plan, I'd like to make recommendations in four key areas. I'll use examples from the work the EAC has done over the years to illustrate examples of the importance of these points.

The first one is a regulatory framework, including targets and timelines. An NCP must be developed within a strong regulatory framework that protects Canada's species and habitats and incents conservation as part of doing business in this country. Without legally binding commitments, a national conservation plan would lack accountability.

As an example, last week I attended the final meeting of the decade-long process to bring integrated management to the eastern Scotian Shelf. Despite years of work by ocean stakeholders, a collaborative plan, and moderate willingness to implement the plan, the initiative essentially did not leave the pages of the plan, largely because of a lack of a regulatory framework that ensures accountability and clear timelines for delivering on the activities.

A more positive example is Nova Scotia meeting its commitment, which is legislated, to12% protected areas by 2015 in the terrestrial environment. This requires policy, legislation, research, and public engagement to make it happen. We need the federal government to work with the provinces to achieve something similar for our rivers and rainwaters.

In addition to a strong national legislative framework, Canada is signatory to several international conventions and treaties, where we've made commitments to the protection of biodiversity. We've committed to the Aichi targets for 2011-2020, just as we committed to the World Summit on Sustainable Development targets in 2002, which included a network of marine protected areas by 2012 and sustainable fisheries by 2015.

Second, a wide range of tools is necessary. An NCP should ensure that it uses existing processes that work, in addition to new processes to develop and implement an effective plan. In addition to a regulatory framework setting aside terrestrial and marine areas for wilderness protection using market-based approaches where NCP objectives can be met is the importance of a wide range of tools. I work for an organization that's not constrained by how we achieve our change on the ground or how we effect change locally; we move it to a national level. We had the flexibility of using many different tools.

I've already given examples of a market-based approach from Off the Hook, and SeaChoice, Canada's sustainable seafood program, is working with retailers across Canada to change their purchasing and eliminate the selling of unsustainably caught seafood. Market-based approaches do need to be brought into climate change regulation as well.

Our food program is a good example of how to engage people and achieve tangible results. We held the first working farm easements in Nova Scotia, building the market for local food through working with farmers, food sellers, and restaurants. These types of programs provide meaningful engagement and skills development. They have multiple benefits, including increasing water infiltration rates, reducing stormwater runoff, and creating urban wildlife habitat. Another small example is we developed a model for a two-parking-spot greenhouse as a way to use public space in a different way. Our program for active and safe routes to school engages thousands of children in over a hundred schools in getting children outside and active, to and from school. These are all examples of how to promote lifelong appreciation of the outdoors, environmental conservation, and engagement in the community.

Third, collaboration is absolutely necessary. Everybody's facing resource constraints. There's an increasing polarization of the conservation community and economic development at a time when the green economy is the focus of next month's global environmental conference, Rio+20. There are collaborative solutions.

● (1355)

I spent the last six years sitting on a national committee with DFO regarding fish habitat. We came up with excellent recommendations on how to better protect fish habitat. Through the input of over a hundred ENGOs, CNGOs, and engagement with industry, common solutions were identified. I also sit on the species at risk advisory committee, where NGOs and industry advise on how to best protect Canada's habitat and species. We also liaise with NACOSAR. Making sure that we do not have polarization is extremely important. While there is not always consensus, we are able to find common ground. Again, an NCP should facilitate collaboration, and not contribute to polarization, which inevitably decreases the involvement of civil society and industry alike.

Environmental objectives cannot be met without economic development goals that recognize the value of the cost of the natural environment. We know from experience, through the Colin Stewart Forest Forum, our Nova Scotia boreal forest agreement, and our work with farmers and the fishing industry that collaboration on conservation leads to real change on the land and water. You saw on the field trip yesterday just how many jobs depend on clean water and environment, and that those who depend on the environment are willing to help protect it.

Finally, there is a need for monitoring and data collection to protect Canada's wildlife, to better inform the public, as well as for government decision-making. Monitoring and primary research are extremely important. My background is a natural scientist. I can't tell you how much we don't know about things, but also how little we use the information we do have. Examples such as the Discovery Corridor in the Gulf of Maine, which was started as part of the census of marine life, show that we still have much to learn about the species that live in our waters. Research on climate change impacts to wildlife and habitats is critical to being able to put in place meaningful and effective management measures. Monitoring and data collection is extremely important in being able to inform regulators and meet targets and timelines that should be built into the NCP. We need to plan for things that cannot be predicted, such as extreme weather events, changes in precipitation patterns, and synergistic and cumulative impacts that negatively affect the natural environment. Understanding and quantifying the role of the natural capital inherent in our ecosystems should be part of the recalibration of economic development.

Finally, we understand the need to focus on specific objectives and outcomes of an NCP. However, we feel strongly that the basic principles I outlined must be key components of a plan. In summary, we need a strong regulatory framework. We need to identify the appropriate tool for the desired outcomes. We need to facilitate collaboration and promote research and monitoring that spans economic and environmental questions. We are investing in our future, and we cannot underestimate the cost of habitat and species loss. These costs need to start being part of the cost of doing business.

Canada's natural heritage, which includes the invaluable habitat provided by three oceans, thousands of rivers, tributaries, and kilometres of coastline, must benefit from any national conservation plan. We need to protect places and processes. We can't take the environment for granted, and working with rather than against our national heritage will help put Canada back on track as a global leader in conservation. We need to protect what we have, including long-standing environmental protection through existing legislation.

This year's Rio+20 meeting will focus on a green economy. I'd like to leave with the question, how would Canada like to present itself at Rio+20, and what will we say about a national conservation plan?

● (1400)

The Chair: Thank you very much.

Finally, we will hear from the Organic Agriculture Centre of Canada. You have ten minutes.

Mr. Andrew Hammermeister (Assistant Professor, Nova Scotia Agricultural College; Director, Organic Agriculture Centre of Canada): Thank you very much. That leaves me as the last witness of the last hearing, I understand.

It certainly is a privilege to be here, especially with colleagues who I don't think I've met before but who have very common interests in protecting the environment. It's certainly a privilege to speak with you as well today. So welcome to Halifax.

In a past life I was the manager of the Native Plant Society of Saskatchewan, so conservation is very close to my heart as well. But I come to you today as the director of the Organic Agriculture Centre of Canada, which was established in 2001. It's the only centre of its kind in Canada dedicated to supporting research, extension, and professional education in organic agriculture. We're located at the Nova Scotia Agricultural College, soon to be a part of Dalhousie University.

One of our main projects right now is we're managing an $8-million national organic research program, supporting over 50 scientists across the country at 35 different research stations and collaborator sites.

Organic agriculture is the most rapidly growing sector in agriculture. In terms of land acreage, Saskatchewan would be the leader. In terms of policy development and number of farmers, Quebec would be, in terms of numbers of farmers, equal to or close to that of Saskatchewan. And Quebec is definitely a leader in terms of policy in terms of organic agriculture.

I've been invited to provide recommendations regarding the development of a national conservation plan, and I place my comments in the context of agriculture and agricultural lands. Today I will discuss how organic agriculture is a defined model for a sustainable production system, with conservation of biodiversity and resources at the core of its guiding principles.

The past agricultural development model was productive but environmentally flawed. The general model was basically to continuously innovate, reduce farm gate prices, and externalize costs. This model drove the phenomenal achievements in productivity in industrial countries after World War II. However, the emphasis on increasing productivity was achieved largely through increased use of inputs, crop and livestock breeding for high-input conditions, reduced crop diversity, increasing the scale of farms and machinery, and the concentration of livestock production.

These practices have resulted in many issues in agriculture that were largely overlooked until a crisis hit, such as high levels of nitrates in groundwater; algal blooms and eutrophication of freshwater supplies; loss of biological diversity, including habitat; declining populations of pollinators; fish kills from soil erosion causing sedimentation of rivers and possibly pesticide or nitrate loading—the list could go on.

While economically driven agriculture has had its problems, there is recognition in the entire agricultural community that conservation of our land and water resources is critically important. This has led to a number of different production systems and industry- or government-led initiatives that support the principles of conservation. And organic agriculture is an example of one of the approaches to dealing with these issues.

What is conservation agriculture? “Conservation agriculture” is defined by Dumanski and his colleagues as

> ...not “business as usual”, based on maximizing yields while exploiting the soil and agro-ecosystem resources. Rather, conservation agriculture is based on optimizing yields and profits, to achieve a balance of agricultural, economic and environmental benefits.

So it's a balance of those three.

> It advocates that the combined social and economic benefits gained from combining production and protecting the environment...are greater than those from production alone.

So the benefits of combining these characteristics are better than production alone.

> With conservation agriculture, farming communities become providers of more healthy living environments for the wider community through reduced use of fossil fuels, pesticides, and other pollutants, and through conservation of environmental integrity and services.

So organic agriculture is a form of conservation agriculture, with guiding principles that directly support environmental sustainability.

● (1405)

Organic agriculture is a regulated and inspected production system driven by consumer demand both domestically and internationally. We're talking about the model of sustainable development here.

As described in the regulated Canadian standards, which are generally consistent with other standards around the world, there are seven guiding principles of organic agriculture, five of which directly relate to the environment. These five can be summarized as protecting the environment by minimizing degradation and pollution; maintaining the long-term fertility of the soil; maintaining biological diversity; recycling materials and resources; and relying on renewable resources.

Guided by these principles, the standards of organic agriculture as a precautionary approach prohibit the use of a number of substances and practices in favour of practices that more closely relate to the functioning of a natural ecosystem. These practices are being used around the world.

So here we have a prescriptive, regulated, internationally recognized system of production with conservation and sustainable development at the core of its principles. This is an example of a system that may contradict other approaches in agriculture but that offers a defined model of addressing agri-environmental issues. The system, albeit not perfect, does work. Numerous scientific papers have identified significant environmental benefits associated with organic agriculture.

My colleague Dr. Derek Lynch, also at the Nova Scotia Agricultural College, who holds a Canada Research Chair on organic agriculture, recently wrote a review paper with colleagues. In that paper he reported that the consensus of data available to date indicates that the distinctiveness of practices in organic farming confers important environmental and ecological benefits. These include maintenance of soil organic matter and added return of carbon to the soil to improve health; reduced off-farm nitrogen and phosphorous losses; enhanced vegetative and wildlife biological diversity, extended sometimes to other taxa, depending upon the landscape; improved support for pollinators and pollination; and reduced energy use and improved energy efficiency.

A number of European countries have adopted policies that either directly support organic agriculture or support the production practices that define it. In consideration of these benefits, FiBL, the largest organic research institution in the world, headquartered in Switzerland, has more than 200 scientists employed by it working on organic and low-input production systems, both in Europe and around the world.

In organic agriculture, regulated standards have been developed that lead to reducing the environmental impacts and increasing efficiency in the utilization of resources, the results of which are certified organic products that have entered the marketplace both domestically and internationally at a premium price. We see a market-driven demand for a production system that is driven by environmental principles.

How do we design a national conservation program in relation to agriculture? We could isolate proven best management practices and provide support for those individual practices. However, the stability of an ecosystem is not a result of the functioning of a single part of it; it is a result of a complete and integrated system working together. Taking a reductionist approach and supporting a few individual practices is not the solution. Rather, complete farming systems guided by conservation, sustainability, and biodiversity enhancement are needed.

In terms of measuring success, there are many different services that an agri-ecosystem could provide, including augmenting food security; offering a source of economic livelihood; fostering habitat for plants, animals, and insects; protecting our water supply; and providing aesthetic and recreational value for the landscape. This is what we see much more in Europe, where they actually provide incentives to farmers to farm the land in a conservation-minded fashion, so that they provide recreational opportunities for their population.

● (1410)

As with many programs, there must be measures of success included to ensure that the desired outcomes are being achieved. These indicators must reflect our desire to protect natural resources, while still promoting development and utilization of the resources, and maintaining or improving the quality of life for all Canadians.

The components of a national conservation program should include clearly defined goals; mechanisms for stakeholders to develop a common vision; education in schools, universities, and among stakeholders; promotion of this vision to all Canadians; a blend of incentive programs that range from broad-scale impact on the structure and function of the ecosystem to those that also address crisis issues; and incentive programs that reach along the entire value chain, so if you want to affect the producers in the way they farm, you have to also consider the processors and retailers as well, and address issues that might trickle down the value chain.

We need to support programs that support conservation initiatives that are already under way and provide for integration of initiatives that support a vision of conservation. Research that supports development of practices that promote conservation and measure success from a holistic perspective are also needed.

I'll wrap up with my conclusion here.

The organic sector is very interested in participating in this process for a national conservation plan. It is essential that the agricultural community takes responsibility for its impact on the environment and preferably adopts sustainable practices without regulation. However, at the same time we must recognize that the farmers are in business, providing services to society, not the least of which is food security, and hence they should be compensated by society.

In choosing organic agriculture, farmers are choosing to place the responsibility upon themselves to farm in a manner that minimizes environmental impact. They are compensated for this by consumer willingness to pay a premium price for food.

Organic agriculture is an established and viable production system, with conservation and sustainable development at its core. It is a market-driven system of production that blends the goals of conservation, social well-being, and consideration for other living beings, and both environmental and economic sustainability. A model such as organic agriculture can be a perfect example of combining the vision of producers, processors, retailers, consumers, and the government in achieving conservation goals.

Thank you very much.

● (1415)

The Chair: Thank you.

I'd like to introduce you to the members of the panel who will be asking you questions now.

The standing committee is made up of 12 members. Six are travelling with us today, along with the support staff. Mr. Woodworth and Mr. Lunney are with the government, as am I; Monsieur Choquette and Madam Liu are with the official opposition, members of the NDP party; and Mr. Eyking is our Liberal member.

The first round of questioning will be seven minutes, followed by five-minute questions.

We will begin our seven-minute round with Mr. Lunney.

Mr. James Lunney: Thank you very much.

Thanks to all our witnesses for being with us for this important final meeting of this particular session.

I want to start with Mr. Hammermeister and organic farming.

You started your presentation, and regrettably we didn't have copies. I guess because we didn't have it in French and English it wasn't distributed. And boy, some of you talk fast. We were making notes.

You made a remark about some $8 million in a research project that's under way, with some 50 scientists and some 35 sites. Could you expand on that, and tell us what this project is all about and what you're hoping to accomplish?

Mr. Andrew Hammermeister: That's part of the science cluster initiative under the Growing Forward policy framework at Agriculture and Agri-food Canada. We are managing the organic science cluster, which is one of ten clusters in agriculture across the country. We have 30 different research activities these researchers are working on across the country.

Mr. James Lunney: Can you give us an example of one aspect being worked on here in Nova Scotia?

Mr. Andrew Hammermeister: Here in Nova Scotia, Dr. Lynch is working on the environmental impact of cropping systems. He is looking at different organic management systems to see the extent of the leaching of nutrients under different organic management practices. It is about trying to protect groundwater supplies and about the efficiency of nutrient management.

Mr. James Lunney: Thank you for that.

Now, critics would state that organic farming is not capable of producing sufficient yields to meet people's needs today. You made a statement about three different aspects. It went by a little too fast for me to get them all down. I wonder if you would simply restate the combination of impacts of organic farming that you feel outweigh the benefits of production alone.

And could you talk about some of the successes in the program? Are you making progress in terms of production capability? Is it possible, for example, for farmers to enhance some of the wetlands we have lost; to take sensitive areas in which marshlands have been drained for production and through environmentally friendly practices actually increase production while enhancing the environment? Is it possible to achieve those objectives?

Mr. Andrew Hammermeister: There are lots of different questions there.

The question whether organic agriculture can sustain yields is a very interesting one, and it's very much broader. If we're talking about feeding the world's population, the issue of food supply goes much farther than just yield, involving distribution and management and dealing with quality and storage and so on. There's a lot of discussion we could have around that.

Organic agriculture and the research in organic agriculture are relatively new. Yes, we definitely are making progress. We're developing new crop cultivars that are adapted to low-input conditions. Those are starting to become available in the next two years. It takes about ten years to develop each new cultivar, so this takes time.

In terms of the other benefits of organic farming practices, we definitely see more biodiversity on organic farms. We definitely see reduced nitrogen leaching losses from organic farms and lower nitrogen emissions. Organic farms don't use nitrogen fertilizers. Nitrogen fertilizers in themselves account for about 40% of the energy costs and hence of carbon dioxide emissions coming from agriculture.

That in itself is a huge contribution to the environment. The trade-off is that if we want to build the soil, have healthy soil, and capture the nitrogen out of the atmosphere using leguminous plants, we have to build those into our crop rotation, and it takes a year out of production to do it. But when we look at all the external costs associated with conventional agriculture and the impacts we've had, if we were to take those costs and invest them in the system, then I think there would be opportunities for tremendous improvement in the benefits organic production confers.

● (1420)

Mr. James Lunney: There has been a lot of talk about eating a hundred miles from home. It's very popular to talk about that in British Columbia. Some of our management practices in processing food and aspects of food safety management make it pretty hard for small producers, in many cases, to accomplish those objectives.

I'll just ask whether you have a comment on that, or whether it's an issue, from where you stand.

Mr. Andrew Hammermeister: The hundred mile...? Trying to eat local and stay local? Yes, there's a lot of organic food that's imported from California, Mexico, and sometimes even from China. About 75% of the organic product consumed in Canada is imported. There's tremendous economic opportunity in Canada to be captured.

What we encourage people to do is to find their local farmers market and buy local and organic. That way, you're buying the benefits of organic agriculture as well as local impacts on the environment.

Mr. James Lunney: Thank you.

Mark, how much time do I have?

The Chair: You have a little over a minute and a half.

Mr. James Lunney: Thank you.

I want to thank the Ecology Action Centre and Susanna Fuller for hosting us yesterday. We had a great day out at Micou's Island with Mark and Jennifer, who accompanied us, and the lower Sackville River system and so on. It was very helpful and well done, and we appreciate that.

You made a comment in your remarks about children. One of our concerns is the impact on kids, especially urban kids, who are increasingly disconnected, it seems, from ecology. One of our objectives is to get more people involved, and new Canadians.

You mentioned this program on active and safe routes to school, of a thousand school children in over a hundred schools. Could you comment briefly on how you're engaging children in this program?

Ms. Susanna Fuller: Sure. The active and safe routes to school program has been in Nova Scotia for about ten years. It is a cross-Canada—actually across North America—program. The idea is to get children to start walking and biking to school. It's celebrated by an International Walk To School Day, there's International Walk To School Week, and there's Take the Roof Off Winter. It's just getting kids outside and active, with the idea that we will then create a much more active culture than we have right now.

I'll give you an example—in Chester, as a matter of fact. They had a trail that was linking a community to the school, but it wasn't maintained. All they've done is widen the trail, put signs up, take out some of the brush, and now I think it's increased the use of that trail by 30%. There are 30% more children using that trail, walking through the woods to get to school.

Mr. James Lunney: That's a safe quarter idea.

Ms. Susanna Fuller: It's a safe quarter, exactly. They're walking through the woods, which is a good thing to do, and also getting exercise on their way to school.

We used to do that. We always hear “I used to walk to school”. We've come a long way from that. I think it's really important to get kids active and outside. It's a key step. In urban areas, first and foremost, it's much easier to do than in rural areas.

The Chair: Thank you. Time has expired.

Monsieur Choquette, you have seven minutes.

[*Translation*]

Mr. François Choquette: Thank you, Mr. Chair.

Thank you to the witnesses.

To get back to the discussion that took place between Mr. Hammermeister and Mr. Lunney, buying within 100 kilometres is actually a very good idea. In British Columbia, it is a very good program. Not only does it encourage local agriculture, but it also reduces the ecological footprint and greenhouse gas emissions. Climate change is not a fabrication. It was noted again yesterday and throughout our travels how climate change is having some very serious consequences and how they relate to our national conservation plan; all the witnesses have spoken about it. It is very important for the fight against climate change to be part of our national conservation plan, and not for us to simply adapt to such change.

To begin with, I am going to address my comments to Ms. Sheppard. We met with a group out west called the Nature Conservancy of Canada, if my memory serves me well. It purchases easements or pieces of land. It has a long-term conservation mission. Does your organization do the same thing? When you have a trust, is it with a view to purchasing land that will be conserved in perpetuity? How does that work?

● (1425)

[*English*]

Ms. Margo Sheppard: Our organization is an umbrella organization that does not itself own land. However, our member groups do own land.

A conservation easement is a legal instrument. It's an encumbrance upon the title of the land. It's a legal agreement between a landowner and a third party land trust, usually. What it does is legally restrict the type or location of development or severance on a piece of property.

Because it's legally registered on title, it runs with the land, so it survives owners; it goes from one owner to the next. If it's ever removed, it has to be removed by a court of law.

The land trust that's involved annually monitors the conservation easement and works with new owners to make sure that the provisions of the easement are upheld.

[*Translation*]

Mr. François Choquette: Thank you.

What you are doing is very good, as is what the Nature Conservancy of Canada is doing. However, there has been some criticism or concern about increases that might ensue in land prices. I do not know if there is outbidding between you and other organizations like the Nature Conservancy of Canada. How could we avoid that problem with other landowners? I do not know whether you understand my question. I am of the opinion that this is the direction we have to take, but there is this small difficulty. How can we resolve this issue?

[*English*]

Ms. Margo Sheppard: It is a problem. However, in the areas where many land trusts work, the land values are rising anyway.

I would like to show you something that I brought today just to spice up my presentation, which is a painting of a coastal area that has about eight pieces of property knitted together from different landowners and the conservation easements, which, if we had not done this, would be covered in cottages.

This is Sam Orr's Pond, in a rural area of coastal New Brunswick, and it is a beautiful place. It has three and a half kilometres of trails and about two miles of coastline. This was painted at the reserve, and it is in an area devoid of provincial parks. Cottages are all around it, and this is a beautiful sanctuary for nature and people.

[*Translation*]

Mr. François Choquette: Thank you.

My question is for Chief Lavallée.

The government has made a commitment to the Nature Conservancy of Canada, and I hope it can do the same with the CLTA. We have to hope that this program is renewed. I am delivering that message, in passing.

Do you think that a cooperative program might be a good idea? On ancestral lands, a sort of easement could be established in a spirit of conservation. Your ancestral rights would be maintained, of course, for example in fishing, and you could do some conservation.

[*English*]

Chief Betty Ann Lavallée: Unfortunately, right now something like that would not work, for the simple fact that most of our lands that are under the control of aboriginal peoples are under the Indian Act. Therefore, any additions to the lands would have to be approved by the minister in order to purchase or add on. There are a lot of regulations that would have to be incurred. So this is not the same. You're comparing apples to oranges when you talk about something like that. It's a whole different ball game.

[*Translation*]

Mr. François Choquette: Yes, I understand.

Do you think that the Aichi commitments should be included in our national conservation plan? Should they form its foundation?

● (1430)

[*English*]

Chief Betty Ann Lavallée: Well, the Aichi targets obviously have to be part of the conservation plan. Now, whether you can pinpoint them to a definitive year or date is another question. Unfortunately, there are a lot of things people have no control over, and that's life in general. And as we've all seen over the last five years, the economy has completely bottomed out in some countries. So it's now for everybody to find that happy balance again between the economy and development and protecting the earth. Without taking extreme positions, we all have to work together now.

[*Translation*]

Mr. François Choquette: Thank you, Chief Lavallée.

[*English*]

The Chair: Thank you.

Mr. Woodworth, now you have seven minutes.

Mr. Stephen Woodworth: Thank you very much.

My thanks to all of the witnesses; it's always a thought-provoking conversation.

If I may, I'd like to begin by addressing Ms. Fuller, because what you said in part has fueled an idea that's been growing with me. It relates to the four recommendations you have made.

It seemed to me and does seem to me that we already in a sense have a national conservation plan, because we are already doing things. The four recommendations you've made, beginning with a regulatory framework of targets and timelines, for example.... We already have that. It may not be in precisely the form it should be, but we at least have something to start with.

Concerning the second recommendation, regarding other tools, including protected areas, education, research, market-based approaches, if you look at what Canadians are doing across the country—whether or not it's always government-led, I won't say—Canadians across the country are responding in a variety of innovative ways.

Thirdly, collaboration in many cases is occurring, sometimes with polarization, sometimes not.

Fourthly, there is monitoring and data collection, although it seems to me that the job is so immense it will take a long time to finish it.

So we have already, I guess you could say, the seeds of these four things happening.

What I'd like to ask you is, going forward, what might we do differently, more effectively? In other words, what might we do less of, what might we do more of? What might we do differently? How can we find efficiencies? I'd like to get your thoughts about that.

Then, if I may, although I fooled Ms. Sheppard—I wanted to ask her the same questions.... I should have said that at the beginning, so that she could take notes, but I'm sure she was listening.

Ms. Fuller, would you begin, please?

Ms. Susanna Fuller: In many cases, we have been doing some good things. I think we have to be careful not to create a bucket, fill it, and then assume that's all we need. We need to be much more strategic. I think we are missing targets and timelines. I can say that for fisheries in particular we haven't had targets or timelines for rebuilding our fish stocks. We might have targets for marine protected areas, and we miss them, we don't meet them.

I think that's where I get to the regulatory framework. If we're going to do this, then let's really do it and let's give ourselves targets. Let's put the Aichi targets into legislation. Let's become accountable, and not create blurry lines around what we might be doing and what's being done by provinces. We need to be really clear about what we want to achieve and in what timelines, and make sure we do it.

There's nothing worse—and I've been through ten years at the ESSIM, Eastern Scotian Shelf Integrated Management Initiative—than bringing together multiple stakeholders who work very hard, voluntarily, to then be met with no take-up by the federal government or no accountability on the regulator's part.

I think Canadians do spend a lot of volunteer time around conservation issues. A lot of things are being done jointly with NGOs and industry. Those things need to be recognized, quantified, and put in the context of targets and timelines. I can't stress that part enough. We can talk all we want, and it can sound good, but unless we have measurables we're not going to go anywhere and we're not going to achieve anything.

Around monitoring, again, I come from a science background. I did my PhD in marine biology. The current cuts to marine science, to me, are shocking, and we won't be able to replace them. We need to have basic monitoring.

We used to be known for science. The Bedford Institute of Oceanography did amazing work about 30 years ago. We have to incorporate that science and understand its contribution to innovation, understanding, and creating an educated Canada that cares about the environment. If we don't have the information, it's hard for us to care. I would argue that monitoring doesn't have to be incredibly expensive. It can be done efficiently. It can be done well. We do use lots of community stewardship models to collect information. All of that has to be done within a framework and a structure that is accountable and measurable.

● (1435)

Mr. Stephen Woodworth: I'm inclined to agree with you. To do that, it needs to be measurable and it requires starting data, which right now is a bit fragmented.

May I hear from Ms. Sheppard on the same approach or question?

Ms. Margo Sheppard: Would you indulge me and recap the question quickly?

Mr. Stephen Woodworth: Yes, my apologies.

What I said is I think we already have, through the efforts of people like all of you here today, a national conservation plan at work across Canada in many ways. But what can we do to make it more effective? What should we do less of? What should we do more of? What should we do differently from what we are currently doing?

Ms. Margo Sheppard: Well, as I said in my talk, I didn't reference the Aichi targets directly, but they are not being met currently in Canada, the target being 17% of the land base and then also a restoration of 15% of the degraded land base by 2020.

The current system of parks and wildlife areas is good, in that it represents the different ecozones of the country. What our membership constituents are concerned about is land that is within reach of a five-minute or ten-minute walk in a rural area that is potentially going to be under a subdivision in the future. So there are areas that are close to home. They're not up in the vast beyond that no one ever goes to or sees.

I would say that the land trust community is a relatively new community that needs as much support as it can get. We are trying to support the individual voluntary actions of citizens to protect lands within their communities, to keep their communities livable, walkable, to have a sense of place, and to maintain community character where perhaps there are watercourses or working waterfronts involved.

The Chair: Mr. Eyking, you have seven minutes.

Hon. Mark Eyking: Thank you, Chair.

Thank you to our guests for coming this afternoon.

I have one round of questioning this afternoon. I have a few questions. If you can make your answers precise, it will help me a bit.

My first question is to you, Ms. Sheppard, and it's on land trusts.

Right now we have in our country a generational shift happening whereby assets are passed down to the next generation. A lot of those assets, of course, are natural land. What I'm sensing is that the generation taking over those properties would like to have some sort of format for keeping them in pristine condition.

That being said, what does the federal government have now or what should it have to help that process, through either tax incentives or tax credits or some sort of...? We often see education trusts and such things, but is there something more concrete that should be done to help families go through this and have something available?

Ms. Margo Sheppard: Well, as recently as seven or eight years ago, I could donate the painting hanging behind me to a gallery and get a tax receipt, but if I donated the land that's depicted in the picture, I had to pay capital gains on it. So the federal eco-gifts program is an excellent program that facilitates the donation of ecologically sensitive lands for enhanced tax benefits. We would like to see that program continue.

The habitat stewardship program for species at risk is also an excellent program that has enabled land trusts across Canada to acquire and steward habitat for endangered species. It has been one of the major sources of funding for land acquisition, and sources of funding for land acquisition are few and far between in this country.

● (1440)

Hon. Mark Eyking: You were talking mostly about sensitive areas and species, but what about raw, natural land? Would it fall into that category too?

Ms. Margo Sheppard: Well, I think that—

Hon. Mark Eyking: Or is it all sensitive?

Ms. Margo Sheppard: —each land trust has its own criteria, and those criteria reflect the values of the volunteers who operate the land trust as an incorporated, non-profit, charitable organization.

Hon. Mark Eyking: Thank you.

My next question is directed to the two chiefs.

I am from Cape Breton, and our fastest-growing community is Eskasoni. It's the largest first nation community in Atlantic Canada. Every time I go there, their biggest concern is land: they don't have enough land. Of course everybody knows why. Years ago, when the Europeans gobbled up the land, they put them on a small piece of land, and sometimes it was not the best piece of land.

That being said, we're also well aware of Donald Marshall, who was from Cape Breton. The court ruling allowed the first nations people to have greater access to resources.

But still there's a problem here. Yes, you're still on the same piece of land, and you can go get the resources, but you talked about your people being first stewards of the land, and that they have the feel of the land. I visited a grade eight class in Eskasoni last week. They were getting into computers, and they're keeping their first language, which is good, but I'm wondering if your community is teaching them enough about being the future stewards of the land. For instance, if these land trusts are available and they need people to manage them, understand them, or even take part ownership, are they prepared well enough to be the new stewards of the land?

Chief Betty Ann Lavallée: As a matter of fact, we are, throughout this region and in New Brunswick. I was part of the conservation board, as the chief in New Brunswick, before I went to Ottawa. I did work with the committee to save Musquash and to put into place the management area for fisheries in the Bay of Fundy. I know that my colleagues here in Nova Scotia are doing the same thing.

Yes, we're teaching our children off the reserve. Every three years, with the funding we receive from Environment Canada, we host the youth for a three-day colloquium. The last one we held in Cornwallis. All they do for three days is focus on environmental issues and traditional issues. It's through Iqaluit, our MAARS program through DFO. The three organizations, the three maritime provinces—New Brunswick, Nova Scotia, and P.E.I.—the three off-reserve councils bring the youth from each council over. They get credit in their schools for it, a science credit. We've made arrangements with the schools to get that science credit.

Hon. Mark Eyking: Very good.

I'll ask questions to you....

Oh, I'm sorry.

Chief Dwight Dorey (National Vice-Chief, Congress of Aboriginal Peoples): Mr. Eyking, I might just add to that.

This land trust issue for conservation easements apparently is fairly new. But I guess, technically speaking, when you look at the reserve system in this country, that was the original land trust idea, which hasn't worked very well, and you've noted that.

Betty Ann and I have recently been engaged in dialogue with the federal government, with the Prime Minister directly, about issues respecting the Indian Act and the abolishment of it, the amendment of it, and things like that. It's pretty obvious that, for various reasons, the Indian Act is not going to be abolished any time soon, but I think it is time for revisions to it, some of which are already being undertaken.

I think it's time to take another look at this whole notion of land trusts. And more effectively, as it relates to some of the conversations going around this table in regard to not only conservation, which is extremely important, but as the discussion was going here today, I'm already visualizing a new concept of land trusts for first nations, aboriginal people, Métis, off-reserve people like our constituents, for economic benefit as well.

I believe the way is to engage people in dialogue. As you indicated, it's time to start getting information out, suggestions, and recommendations from a committee such as this, going into Parliament, to seriously look at new ways of doing old things that were not working.

So I really like this notion.

● (1445)

The Chair: The time's expired.

Madam Liu, *cinq minutes*.

Ms. Laurin Liu: Thanks to all the witnesses for coming.

I'd like to direct my first question to Chief Lavallée.

You spoke about the need to integrate traditional knowledge into an NCP. It's something we heard from Shawn Atleo as well, who met with the committee on this study. On a very concrete or practical level, what would this look like?

Chief Betty Ann Lavallée: We're consistently doing it now. As I said, we have three individuals who are sitting on NACOSAR. One of them is a scientist, Dr. Donna Hurlburt, plus two community people. We also have people sitting on the species at risk committee. We do a lot of consultation with our elders to identify the various species that are at stake. As I said, we do a lot of dialogue. That's how we address the issues through these committees. We do it at the local, regional, national, and international levels.

We've been able to produce some beautiful posters and some booklets, through collaboration with our elders in our communities. I was going to bring some, but I didn't think you would want to lug them around, so I will send them over to the committee for you to see. It shows you the amount of work that we have put into working with the various departments.

Ms. Laurin Liu: Thanks.

I like the way you mention the idea of the future generations, the seven generations.

We also know sustainable development has been something that's been enshrined in Canadian law, such as the Canadian Environmental Assessment Act. It's been defined as developing for the needs of today's generation in a way that would allow future generations to also meet their needs.

Do you think that sustainable development, defined as such, should be a guiding principle for an NCP?

Chief Betty Ann Lavallée: It's going to have to be. I mean, you've got to find a balance. You can't go from one extreme to another. There's got to be a balance. We can't expect people today to be unemployed or to live in poverty. We've already got enough people in poverty. We have to find a way we can work together, set the rhetoric aside, and look at what's best for that community. You've got to engage that community, that's the primary thing, right there. You've got to look at their whole social economic situation. You've got to look what's going to happen in the future. If people are giving the information, without fear, and have good common sense, I think it's achievable.

● (1450)

Ms. Laurin Liu: Ms. Fuller, what should the government's conservation priorities be, in terms of species and territories? Should we be focusing on remote regions or developed regions, and should we be focusing more on restoration or protection? Obviously both are important, but what should we be focusing on as a priority?

Ms. Susanna Fuller: I would get back to the target and timeline, and I would look at a bit of a risk assessment. I don't think you can do one or the other; I think you need to do both. As well, I think we need to take into consideration how we are working now, particularly from the marine perspective. We have a way of identifying key areas that should be protected. We have a framework to do that. They include the areas that need to be restored and the areas that should be protected.

What I would do is have a five-year plan that really looks at the low-hanging fruit, so that we have some progress. Get the most at-risk areas or species that need to be dealt with and that are providing important ecosystem services we can achieve success with. I would do that from a species basis and also a spatial protection basis. You can set yourself up for failure otherwise. But if there is a risk assessment and we do those things that are most at risk, then the things that can be protected, and then move to the more difficult ones next, that would be the most realistic and practical way to go about it. Perhaps it’s not the most ideal, but I'm trying to be practical.

Ms. Laurin Liu: What measures should the government take to diminish the impact of aquaculture on marine ecosystems?

Ms. Susanna Fuller: Let's put it in closed containment. We know that works.

We know it's difficult. The profit margins aren't 50%; they're probably 5% to 30%. In Nova Scotia, we have some of the world's leading closed containment operations. In Debert at Millbrook First Nation they're doing an excellent job of farming Arctic char. There are ways of scaling that up. We know that retailers are interested in this.

Closed containment gives us something to do while we're trying to figure out how to mitigate open net-pen aquaculture. We don't know how to mitigate it right now.

The Chair: Your time has expired, Ms. Liu. Thank you.

Mr. Lunney, you'll close us up. You have five minutes.

Mr. James Lunney: Thank you, Mr. Chair.

Ms. Sheppard, one of your first recommendations for the Canadian Land Trust Alliance was the establishment of a cost-shared stewardship endowment fund, which could be accessed by the conservation community to ensure protected lands are managed and maintained in perpetuity.

Now, if I understood you correctly, you said something to the effect that it would be managed like a PPP and funds could be accessed by local groups. Could you expand on that concept for us? What exactly do you envisage?

Ms. Margo Sheppard: Part of being a landowner and a good steward is having funds to basically keep your lights on, your fences mended, your neighbours happy, and your trails maintained, if they're there.

The major hurdle for land trusts in acquiring land through donation, direct acquisition, or conservation easement is acquiring the funds, along with the land interest, to actually manage that land for the long term. Any responsible land trust must fund-raise and acquire these funds, which are costed out based on what the land is going to require over a 20-year timeframe, and then one legal challenge every 20 years, amortized backwards, and put that in the bank at the same time as the title is transferred.

It is my understanding that the arts community has established, with the government and private corporations, a form of arts endowment, which enables galleries to apply to secure funds for the long-term stewardship and conservation of artworks, be they paintings or sculptures. What we are suggesting is that a similar consideration be done for the actual lands that are conserved through the private sector, that being land trusts and allied organizations, so that they are able to apply to secure funds for management activities.

● (1455)

Mr. James Lunney: Thank you for that.

As a follow-up on that, you mentioned the ecological gifts program and the habitat stewardship program. In budget 2007 some $225 million was put forward. It leveraged other funds from organizations, including some of your members—Ducks Unlimited, Nature Trust, Nature Conservancy, and so on—to purchase and acquire ecologically sensitive funds. Some of that money is still actually being utilized, the end of that fund. Is that a concept that could be expanded or utilized? Did that model work, as far as you're concerned, or for your member organizations?

Ms. Margo Sheppard: That was a wonderful program. Did it work for our organizations? I would say there were mixed results.

The Nature Conservancy, God bless them—we love them—were able to put the funds to work for their priorities and for their projects. I am so happy they are in the Atlantic provinces, frankly. Certain land trusts could access the funding, but I would say that a future program of similar or larger scope would be much better if it enabled local organizations, those whose priorities did not necessarily include those of the Nature Conservancy, to actually exercise some of their local strategic planning priority areas in terms of securement.

This is why I suggested that the Land Trust Alliance, the umbrella group, is a possibility for delivering something that actually taps into the 100-plus land trusts that exist across the country and our grassroots volunteer organizations within communities that aren't necessarily overlapping with Nature Conservancy priorities.

Mr. James Lunney: Okay. Thank you for that.

Ms. Fuller, you mentioned the Colin Stewart Forest Forum, the collaboration, and your success with that. Could you just briefly give us a description of what you accomplished with that program?

Ms. Susanna Fuller: That Colin Stewart Forest Forum was bringing together conservation groups and forestry companies to identify ecologically sensitive lands, which were then set aside and/or purchased by the province through their 12% goal in terrestrial protection.

That 12% goal is met in three ways. It's met by crown land protection. It's met by the Nova Scotia Nature Trust, which protects private lands through conservation easements. It's also met through working with industry on setting aside lands that sometimes are purchased and sometimes are contributed. That's how it works.

Mr. James Lunney: Thank you.

The Chair: Thank you.

I want to again thank our witnesses for being with us.

Chiefs Lavallée and Dorey, thank you so much, this being Mi'kmaq territory. We were on Micou's Island and thoroughly enjoyed it and the tour yesterday. Thank you so much.

We started our travels on the west coast and we end them on the east coast. We appreciate your input as we develop our recommendations to the government on a national conservation plan.

Colleagues, we will now adjourn and proceed to the airport.

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